AUSTRALIA

COUNTRY PROFILE

**IMPLEMENTATION OF AGENDA 21:
REVIEW OF PROGRESS MADE SINCE THE
UNITED NATIONS CONFERENCE ON
ENVIRONMENT AND DEVELOPMENT, 1992**

**Information Provided by the Government of Australia to the
United Nations Commission on Sustainable Development
Fifth Session
7-25 April 1997
New York**

United Nations Department for Policy Coordination and Sustainable Development
Division for Sustainable Development
The Information contained in this Country Profile is also available on the World Wide Web, as follows:
http://www.un.org/dpcsd/earthsummit

E/CN.17/1997/Misc.44
97-09229

AUSTRALIA

This country profile has been provided by:

Name of Ministry/Office: Environment Australia

Date: April 1997

Submitted by: Mr. Roger Beale AM, Secretary, Department of Environment, Sport and Territories

Mailing address: G.P.O. Box 787, Canberra A.C.T. 2601, Australia

Telephone: 61 6 274 1387

Telefax: 61 6 274 1858

E-mail:

TABLE OF CONTENTS

		Page
ACRONYMS		2-3
OVERVIEW		4-5
FACT SHEET		6
AGENDA 21 CHAPTERS		
2.	International cooperation to accelerate sustainable development in developing countries and related domestic policies	7-8
3.	Combating poverty	9
4.	Changing consumption patterns	10-12
5.	Demographic dynamics and sustainability	13-14
6.	Protecting and promoting human health	15-16
7.	Promoting sustainable human settlement development	17-18
8.	Integrating environment and development in decision-making	19-20
9.	Protection of the atmosphere	21-24
10.	Integrated approach to the planning and management of land resources	25-26
11.	Combating deforestation	27-30
12.	Managing fragile ecosystems: combating desertification and drought	31-32
13.	Managing fragile ecosystems: sustainable mountain development	33-34
14.	Promoting sustainable agriculture and rural development	35-38
15.	Conservation of biological diversity	39-40
16.	Environmentally sound management of biotechnology	41-42
17.	Protection of the oceans, all kinds of seas, including enclosed and semi-enclosed seas, and coastal areas and the protection, rational use and development of their living resources	43-46
18.	Protection of the quality and supply of freshwater resources: application of integrated approaches to the development, management and use of water resources	47-50
19.	Environmentally sound management of toxic chemicals, including prevention of illegal international traffic in toxic and dangerous products	51-54
20.	Environmentally sound management of hazardous wastes, including prevention of illegal international traffic in hazardous wastes	55-56
21.	Environmentally sound management of solid wastes and sewage-related issues	57-58
22.	Safe and environmentally sound management of radioactive wastes	59-60
23-32.	Major groups	61-64
33.	Financial resources and mechanisms	65-66
34.	Transfer of environmentally sound technology, cooperation and capacity-building	67-68
35.	Science for sustainable development	69-70
36.	Promoting education, public awareness and training	71-72
37.	National mechanisms and international cooperation for capacity-building in developing countries	73-74
38.	International institutional arrangements	75
39.	International legal instruments and mechanisms	76
40.	Information for decision-making	77

ACRONYMS

APELL	Awareness and Preparedness for Emergencies at Local Level
CFC	chlorofluorocarbon
CGIAR	Consultative Group on International Agriculture Research
CILSS	Permanent Inter-State Committee on Drought Control in the Sahel
EEZ	exclusive economic zone
ECA	Economic Commission for Africa
ECE	Economic Commission for Europe
ECLAC	Economic Commission for Latin America and the Caribbean
ELCI	Environmental Liaison Centre International
EMINWA	environmentally sound management of inland water
ESCAP	Economic and Social Commission for Asia and the Pacific
ESCWA	Economic and Social Commission for Western Asia
FAO	Food and Agriculture Organization of the United Nations
GATT	General Agreement on Tariffs and Trade
GAW	Global Atmosphere Watch (WMO)
GEF	Global Environment Facility
GEMS	Global Environmental Monitoring System (UNEP)
GEMS/WATER	Global Water Quality Monitoring Programme
GESAMP	Joint Group of Experts on the Scientific Aspects of Marine Pollution
GIPME	Global Investigation of Pollution in Marine Environment (UNESCO)
GIS	Geographical Information System
GLOBE	Global Legislators Organisation for a Balanced Environment
GOS	Global Observing System (WMO/WWW)
GRID	Global Resource Information Database
GSP	generalized system of preferences
HIV	human immunodeficiency virus
IAEA	International Atomic Energy Agency
IAP-WASAD	International Action Programme on Water and Sustainable Agricultural Development
IARC	International Agency for Research on Cancer
IBSRAM	International Board of Soil Resources and Management
ICCA	International Council of Chemical Associations
ICES	International Council for the Exploration of the Sea
ICPIC	International Cleaner Production Information Clearing House
ICSC	International Civil Service Commission
ICSU	International Council of Scientific Unions
IEEA	Integrated environmental and economic accounting
IFAD	International Fund for Agricultural Development
IGADD	Intergovernmental Authority for Drought and Development
IGBP	International Geosphere-Biosphere Programme (ICSU)
IGBP/START	International Geosphere-Biosphere Programme/Global Change System for Analysis, Research, Training
ILO	International Labour Organisation
IMF	International Monetary Fund
IMO	International Maritime Organization
INFOTERRA	International Environment Information system (UNEP)
IOC	Intergovernmental Oceanographic Commission
IPCC	Intergovernmental Panel on Climate Change
IPCS	International Programme on Chemical Safety
IPM	integrated pest management
IRPTC	International Register of Potentially Toxic Chemicals
ITC	International Tin Council
ITTO	International Tropical Timber Organization

ACRONYMS (Cont'd)

IUCN	International Union for Conservation of Nature and Natural Resources
MARPOL	International Convention for the Prevention of Pollution from Ships
OECD	Organisation for Economic Cooperation and Development
PGRFA	plant genetic resources for agriculture
PIC	prior informed consent procedure
SADCC	South African Development Co-ordination Conference
SARD	sustainable agriculture and rural development
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNDRO	Office of the United Nations Disaster Relief Coordinator
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNU	United Nations University
WCP	World Climate Programme (WMO/UNEP/ICSU/UNESCO)
WFC	World Food Council
WHO	World Health Organization
WMO	World Meteorological Organization
WWF	World Wide Fund for Nature (also called World Wildlife Fund)
WWW	World Weather Watch (WMO)

OVERVIEW

Government

The Commonwealth of Australia is a federation of six self-governing States and two self-governing mainland Territories. The Federal Government's powers and responsibilities are defined in the Australian Constitution and the State and Territory Governments are responsible for all other matters. State and Territory Governments also have established systems of Local Government and there is approximately 750 local Councils throughout Australia.

Environmental powers are not specifically dealt with in the Australian Constitution and are not the sole province of any one sphere of government. There is a recognition that environment and sustainable development issues need to be addressed on a local, regional, national and international scale. This is reflected in the development of national strategies and agreements which provide the main domestic basis for the implementation of UNCED outcomes.

National Strategies and Agreements

A cooperative approach with strong leadership at the national level on environmental issues has provided the cornerstone to Australia's policy development and program delivery since 1992. This cooperative approach by all spheres of Government extends to non-government organisations and community groups.

The 1992 InterGovernmental Agreement on the Environment (IGAE) is an agreement between all spheres of government concerning their roles and responsibilities in decision making processes and sets out mechanisms for resolving national issues. The IGAE provides a framework for a cooperative approach to environmental decision making, policy development and program implementation. The IGAE recognises the need for effective integration of environmental and economic considerations and is based on the acceptance of ESD principles by all spheres of government.

Australia has a number of key strategies in place to support sustainable development. The principal and overarching strategy is the National Strategy for Ecologically Sustainable Development (ESD) which seeks to address sustainable development from a distinctly Australian perspective. Other key strategies which have been implemented since 1992 include the National Forest Policy Statement, the National Strategy for the Conservation of Australia's Biological Diversity, the National Greenhouse Response Strategy, the Commonwealth Coastal Policy, the National Waste Minimisation and Recycling Strategy, and the National Landcare Program.

National Level Implementation

In order to oversee the development of national strategies and policy issues concerning the environment and ecologically sustainable development there is a range of mechanisms which provide an administrative and Ministerial framework for advice and input. At a political level there is a range of relevant Ministerial Councils including the Australian and New Zealand Environment and Conservation Council, the National Environment Protection Council, and the Agriculture and Resource Management Council of Australia and New Zealand. At the administrative level, the InterGovernmental Committee for ESD provides the forum for progressing key national issues pertaining to the implementation of the National Strategy for ESD and the National Greenhouse Response Strategy.

Monitoring and Review

At a national level there has been a range of work undertaken on reviewing and monitoring national agreements and strategies. Concurrent with the five year timeframe of the United Nations General Assembly review of progress since UNCED, a number of these reviews are currently underway. The focal point for these review processes is the senior Intergovernmental body, the Council of Australian Governments (COAG).

The National Strategy for ESD has been reviewed on two occasions with reports on implementation prepared for 1993 and the period 1993-95. Outcomes from the second review process are currently being directed towards targeting key areas for further progress. The IGAE was reviewed in 1995. Currently in progress is a review of respective governmental roles and responsibilities with respect to the environment with an overarching aim of improving the cooperative framework established under the IGAE. This review will be completed through a report to COAG in June 1997. In parallel with this process, federal environmental legislation will also be reviewed. These reforms will encourage the implementation of ESD through better environment protection coupled with greater certainty for industry in decision-making processes.

Since 1992 there has also been general international consensus on the need to provide more quantifiable advice to policy makers on the progress towards implementing sustainable development. In Australia there have been a number of approaches in this regard. In 1996, the first comprehensive Australian State of the Environment (SoE) Report was released. The Report, which was called for in the National Strategy for ESD, provides a key element in providing information on the condition of and the pressures on our natural environment, and societal responses to these pressures and conditions. In addition, many State,
Territory and Local Governments are in various stages of undertaking state of the environment reporting. At a sectoral level there is also a range of initiatives on developing sustainability indicators. Work on improving information available to decision makers has also been undertaken by the Australian Bureau of Statistics (ABS). The ABS has researched and produced a range of publications on environmental statistics.

International Cooperation

Australia supported the establishment of the UNCSD and has been a member of the commission since its inception. Australia's commitment to the principles of Agenda 21 are also reflected in the appointment of an Ambassador for the Environment. Australia has consistently supported an expanded role for NGO participation throughout the UNCED process. This commitment has been reinforced by having NGO representatives on Australian delegations to all sessions of the CSD.

Australia funds key international institutions involved in promoting multilateral solutions to environmental problems. Among these organisations are United Nations Environment Program (UNEP), World Health Organisation (WHO), United Nations Fund for Population Activities (UNFPA), United Nations Development Fund for Women (UNIFEM), World Meteorological Organisation (WMO), United Nations Development Program (UNDP), International Maritime Organisation (IMO), United Nations Education and Scientific Cooperation Organisation (UNESCO), Food and Agriculture Organisation (FAO), and the twenty-two international agricultural research centres, including the sixteen centres of the Consultative Group on International Agricultural Research.

Since 1992, Australia has undertaken a range of substantial measures to integrate and promote the principles of sustainable development throughout the development cooperation program. The policy basis for the development program is contained in the document 'Towards a Sustainable Future'. This policy focuses on the key themes contained in Agenda 21, namely; the economic and social dimensions of development, the conservation and management of resources for development, and strengthening the role of major groups. In particular the policy basis is targeted towards sustainable development priorities in the Asia-Pacific region. The environmental expenditure component of Australia's aid program increased from A$ 120 million in 1992 to over A$ 160 million in 1995.

The Way Forward

Australia has a diverse and often unique environment and Australians are among the most environmentally aware people in the world. Coupled with this Australia has in place a mature range of policies and institutional mechanisms to ensure future progress towards ecologically sustainable development. Some aspects of the Australian environment are in good condition and in a number of areas our approach to natural resource management has received international recognition. However, Australia faces a number of environmental challenges which need to be addressed if we are to attain the goal of ecologically sustainable development.

The Federal Government recognises the need to provide a secure funding base for initiatives addressing Australia's environmental and ecologically sustainable development challenges. Recognising the importance of the health of the environment to economic, social and conservation objectives, the Federal Government has decided to establish a $1.25 billion Natural Heritage Trust. The Natural Heritage Trust is to be largely funded by the partial sale of a publicly owned telecommunications utility. Like many governments, the Australian Government is under fiscal pressure, and in examining alternatives to taxation or borrowing, has decided that the short term financial gains derived from the sale of a public asset should be used to establish a long term investment in Australia's environment for current and future generations.

The Natural Heritage Trust is based on the protection, conservation and sustainable use of Australia's natural resource base through constructive and cooperative partnerships between governments, communities and the private sector. The establishment of the Trust also marks a new era of innovative and secure environmental funding, re-orientation of environmental financing towards areas of genuine national importance, and better integration of conservation and natural resource management programs to rehabilitate and ensure the protection of the natural environment.

UNCSD - NATIONAL LEVEL COORDINATION STRUCTURE OF AGENDA 21 ACTIONS
(Fact Sheet)

AUSTRALIA

1. Key National Sustainable Development Coordination Mechanism(s)/Council(s).
Intergovernmental Committee on Ecologically Sustainable Development (ICESD)

Contact point (Name, Title, Office): Dr. Margaret Clarke
Assistant Secretary
International and Coordination Branch
Environment Australia

Mailing address: G.P.O. Box 787, Canberra A.C.T. 2601, Australia

2. Membership/Composition/Chairperson

2a. List of ministries and agencies involved:
Australian Government Departments: Prime Minister and Cabinet; Environment, Sport and Territories; Foreign Affairs and Trade; Primary Industries and Energy.

State Government Departments: Premier's, New South Wales; Premier & Cabinet, Victoria; Office of the Cabinet, Queensland; Premier & Cabinet, Western Australia; Premier and Cabinet, South Australia; Premier and Cabinet, Tasmania; Chief Minister's, Northern Territory; Environment, Land and Planning, Australian Capital Territory. Australian Local Government Association

2b. Names of para-statal bodies and institutions involved, as well as participation of academic and private sectors:
See below

2c. Names of non-governmental organizations:
ICESD regularly consults with the following organizations: World Wide Fund for Nature, Australian Conservation Foundation, Greenpeace, Australian Council for Overseas Aid, National Farmers Federation, Business Council of Australia, Minerals Council of Australia, Australian Council of Trade Unions, Aboriginal and Torres Strait Islander Commission, National Environmental Law Association, Environment Management Industry Assoc. of Australia, Australian Association for Environmental Education, Institute of Engineers, Women and the Environment Network, Action for Solidarity Equality Environment and Development (Youth NGO), Community Aid Abroad, National Association of Forest Industries,Environs Australia (formerly the Municipal Conservation Association.)

3. Mandate role of above mechanism/council:
ICESD is the peak, officials-level, forum for coordination of ecologically sustainable development related strategies and policies which effect Federal, State and Territory, and local government jurisdictions. The committee reports to the Council of Australian Governments. Implementation of strategies and policies is carried out by the relevant agency/juriadiction.

Submitted by
(Name): Mr. Andrew Ross

Signature: Signed.

Title: Director, Intergovernment Unit

Date: April 1997

Ministry/Office: Environment Australia

Telephone: 61 6 274 1387 **Fax:** 61 6 274 1858 **e-mail:** igu@dest.gov.au

AGENDA 21 CHAPTER 2: INTERNATIONAL COOPERATION TO ACCELERATE SUSTAINABLE DEVELOPMENT IN DEVELOPING COUNTRIES AND RELATED DOMESTIC POLICIES (with special emphasis on TRADE)

NATIONAL PRIORITY: Addressed in the National Strategy for Ecologically Sustainable Development.

STATUS REPORT:

Australia's National Strategy for Ecologically Sustainable Development (NSESD) acknowledges the national and international dimensions of sustainable development, particularly the important nexus between international trade and its impact on the environment. At the national level, the NSESD calls for the provision of a policy framework which supports the efficient and environmentally responsible development of the nation's resources. At the international level, the NSESD calls for the full incorporation of environmental costs associated with production and use for maximising the ecologically sustainable development benefit of trade liberalisation.

Domestically, the Government is committed to microeconomic reform in order to enhance Australia's international competitiveness and to raise living standards and, through improved allocative efficiency, a more sustainable pattern of resource use. The unilateral tariff reductions of recent years have seen the nominal rate of assistance to both the manufacturing and commodities sector substantially reduced.

Australia's foreign investment regime is both liberal and transparent and Australian investment in a number of developing countries in its region is contributing to their growth and sustainable development.

Australia is supportive of international action aimed at assessing the environmental effects of trade policies. Australia also recognises that trade liberalisation needs to be complemented by appropriate environmental policies achieving sustainable development on a global scale, and has promoted efforts to finding international policies which facilitate win win outcomes on trade and environment, especially in relation to developing countries. Australia is incorporating the valuation of natural assets, and expenditure on the environment protection, into the system of national accounts.

Australia's overseas development assistance program is heavily oriented towards the promotion of sustainable development through a balance of socially useful infrastructure projects and small scale projects benefiting local communities. Many of these projects/activities primarily address environmental problems or have significant positive environmental ramifications. Other projects/activities are required to minimise their impact on the environment.

CROSS-SECTORAL ISSUES

1. Decision-Making Structure:

The Department of Foreign Affairs and Trade, especially the Environment and Antarctic Branch, and Environment Australia are responsible nationally for the issues under this chapter.

2. Capacity-Building/Technology Issues:

Australia considers it important to build institutional capacity in the area of trade and environmental assessment.

3. Major Groups:

NGOs give high priority to examining the environmental, labour and human rights impacts of trade liberalisation. Through Government - NGO consultations, a number of NGOs have expressed the view that international, regional and national environmental and social standards could be eroded by free trade agreements such as the GATT/WTO. Other NGOs have emphasised the importance of continued trade liberalisation, increased efficiency and the eradication of poverty to the search for ecological sustainablity.

NGOs are also concerned that the abolition of agricultural subsidies, whilst benefiting Australian farmers, have very uneven benefits with some developing countries with some developing countries benefiting but others being worse off.

4. Regional/International Cooperation:

Australia has actively pursued a program of trade liberalisation, both unilaterally, and through international fora such as the WTO and APEC. Australia has also pursued the integration of trade and environment issues in the CSD and other international fora including the WTO, APEC, OECD, UNEP, ECOSOC and UNCTAD. Activities have focused on the commodity trade sector, where Australia has argued for the removal of trade restrictive and distorting policies which lead directly to the over-exploitation and degradation of the environment and lower export income returns for commodity exporting developing countries. In the WTO Committee on Trade and Environment, Australia supported the view that, if

the multilateral trading system is to deliver its promise of improvements in social welfare, then trade reform will have to be supported by appropriate environmental policies. Australia sees no conflict between WTO measures and environmental policies. Australia notes, however, that conditions facing southern hemisphere countries are frequently diiferent to those faced by northern hemisphere countries.

Australia is effectively implementing the OECD procedural guidelines on integrating trade and environment policies and is an active participant in the OECD Joint Session of Trade and Environment Experts. In APEC, Australia has promoted the integration of environmental issues into ongoing programme activities. It has also been important in the development of key sustainable development themes within APEC, including Clean Technology/Clean Production and Sustainability of the Marine Environment.

AGENDA 21 CHAPTER 3: COMBATING POVERTY

NATIONAL PRIORITY: Employment is a national priority.

STATUS REPORT:

Generation of income through employment is considered the main way to improve living standards and Government policies focus on the creation of an economic environment which is conducive to the generation of employment. Where self-provision is not possible, a comprehensive safety net ensures protection of a basic standard of living.

The Government recognizes that poverty is a relative and complex concept. As non-cash factors such as access to government services and family support are also important in determining living standards, the Government does not endorse any specific measure of poverty.

Australian Aboriginal and Torres Strait Islander people comprise about 1.6% of the overall population and suffer serious disadvantage by a range of indicators in both socio-economic well-being and health. Unemployment rates are substantially higher than for other Australians; levels of long term unemployment are particularly high. Income levels are under two thirds of the national figure. The health of Aboriginal and Torres Strait Islander people is also significantly worse than for other Australians.

Since the mid 1980s there has been a series of searching reports on various aspects of Aboriginal and Torres Strait Islander affairs, which have called forth significant Government responses. These responses have covered a broad range of areas and have had varying degrees of success. The severity of disadvantage suggests that improvement in the socio-economic and health status of Aboriginal and Torres Strait Islander people will be gradual. In the wake of the report of the Royal Commission into Aboriginal Deaths in Custody it is now recognised that the improvement being sought will be achieved only by fundamental changes in societal attitudes and by recognition of the rights of Australia's indigenous citizens.

CROSS-SECTORAL ISSUES

1. Decision-Making Structure:

The Department of Social Security is the main provider of social welfare programs. Social security services in Australia are provided directly by the Federal Government or through State/Territory and Local Government authorities and voluntary organizations.

2. Major Groups:

Strengthening civil society through support for institutions outside the government sector, such as NGOs and community groups is a key aspect of the Australian development cooperation program. This program also includes a comprehensive approach to address the role of women in development.

3. Finance:

The social security and welfare budget was approximately $A 43,449 million in 1994-95 and $A 45,237 in 1995-1996.

4. Regional/International Cooperation:

Poverty alleviation is intrinsic to the objective of Australia's development cooperation program. The Government pursues a three-pronged poverty reduction strategy which requires action on a number of fronts such as: the promotion of sustainable economic growth, investments in human resource development and social development and the provision of safety nets and emergency relief where needed. Over 30% of the Australian aid program is spent on social sector programs. The Government also places considerable importance on supporting good governance through development assistance.

The Australian development cooperation program takes into account the environmental impact and sustainability issues in activities aimed at economic growth and those directly targeting the poor.

AGENDA 21 CHAPTER 4: CHANGING CONSUMPTION PATTERNS

NATIONAL PRIORITY: Addressed through a range of Policies and Programs.

STATUS REPORT:

Australia has in place a wide range of policies and programs aimed at promoting sustainable consumption and production and reducing environmental impact. Described below are some examples of initiatives taken in various sectors in Australia.

- The Federal Government's Resource Policy Statement is committed to preparing a White Paper on Sustainable Energy Policy with a 25 year perspective. The Government's aim is to provide an energy policy framework that integrates economic, environmental and social goals.

- In 1994 the Council of Australian Governments agreed on a national framework for water reform which comprises a package of diverse but inter-related measures to bring about more efficient and sustainable consumption and management of the nations water resources, through changes in both supply and demand management. It embraces pricing reform based on the principles of consumption-based pricing and full-cost recovery; the reduction or elimination of cross-subsidies; and making subsidies transparent. The framework also involves the clarification of property rights; the allocation of water to the environment; the adoption of trading arrangements in water; institutional reform; public consultation; and participation and research. Full implementation of the framework by the year 2001 should lead to significant changes in pricing, allocation and management of water supplies for more efficient and ecologically sustainable water consumption.

- Australia's policy on waste management is guided by a national target to reduce waste going to landfill by fifty per cent by the year 2000, measured in per capita weight terms. Waste minimisation and recycling schemes are available to most of Australia's population. More recently, governments have gone beyond the focus of recycling and towards waste minimisation to improve current levels of consumption and resource use. In 1995 the Industry Commission conducted an inquiry into packaging and labelling in Australia. A report was produced in early 1996.

- Industry has been encouraged to minimise environmental impacts through the Cleaner Production Program, the Best Practice Environmental Management Program, the National Water Quality Management Strategy and the Energy Audit Program. The Australian and New Zealand Environment and Conservation Council has also decided to develop a National Cleaner Production Strategy to help companies move from awareness of cleaner production to implementation and enable decisions with positive environmental benefits to receive high priority in normal business decision making processes.

- Reform of energy markets is a key element in the Government's micro-economic reform and environmental agendas. The National Electricity Market is set to commence in 1997, while proposed gas market arrangements are near to agreement. The new arrangements will improve efficiency in the existing delivery of energy services, leading to environmental as well as economic gains. Prices increasingly will reflect the true costs of energy provision, and there will be no discrimination between any particular energy source or technology. This will allow efficient competition from the whole spectrum of new and innovative energy technologies.

  A robust and competitive energy services market is already appearing. On the demand side, energy retailers are gearing up to provide integrated packages, including energy efficiency and smart metering, to meet customers' energy service needs. On the supply side, there is renewed interest in establishing co-generation and remote area power systems projects. These new technologies have the potential to significantly lower greenhouse gas emissions and other environmental impacts from the energy sector.

- The Australian Government recognises the highly significant environmental and scientific value of our forests. The Federal, State and Territory Governments have agreed to a National Forest Policy which has, as key goals, the development of internationally competitive and ecologically sustainable wood production and wood products industries and the development of a comprehensive, adequate and representative forest reserve system.

  The Federal Government has also endorsed a Wood and Paper Industry Strategy to encourage international competitiveness, value-adding and investment in these industries. This Strategy recognises the continued reliance of Australia's wood and paper industries on resources from native forests, plantations and recycled fibre, and that future industry growth will be predominantly based on plantation and farm forestry resources. Australia currently imports

wood to meet its consumption needs but, through plantation expansion, expects to be exporting wood early next century. In this regard Federal, State and Territory Ministers have endorsed a goal of trebling the national plantation estate by the year 2020. A national plantation strategy is being developed in consultation with industry to achieve this goal.

CROSS-SECTORAL ISSUES

1. Decision-Making Structure:
A range of Departments at the Federal, State and Territory level are responsible for policies and programs on changing consumption patterns.

2. Capacity-building/Technology Issues:
An Organisation for Economic Cooperation and Development (OECD) Experts Workshop on Sustainable Water Consumption was hosted by Environment Australia in Sydney, in February 1997, as part of their Programme on Sustainable Consumption and Production. The purpose of the Workshop was to: evaluate a wide range of policy tools, mechanisms and options, with an emphasis on demand side management and consumer behaviour issues; use case studies to identify problems and trends and in particular, to highlight successful management approaches; focus on water resources management in the commercial/residential, industrial and agricultural sectors, as well as integrated demand management, including meeting the water needs of the environment; and examine issues of relevance to both OECD Member countries and non-OECD countries. Environment Australia sponsored seven non-OECD countries from within the region to participate in the Workshop.

A Review Meeting of the OECD Sustainable Consumption and Production Programme was also hosted by Environment Australia, in Sydney in February 1997 to: discuss progress to date on the Programme; provide future directions for the work; prepare a report to OECD Environment Ministers; and develop key messages for the UNCSD Fifth Session and UNGASS.

The Federal Government has been active in demonstrating that product redesign can reduce a product's environmental impact. It has provided financial assistance to the Royal Melbourne Institute of Technology's (RMIT) Centre for Design to assist with helping companies redesign their products to reduce environmental impact and improve international competitiveness. The "EcoReDesign" initiatives at RMIT are some of the first in the world and include a recyclable kettle; resource saving dishwashers; an environmentally friendly office furniture system; a water saving device, a packaging collection and recycling system; and a vending machine. All these products have been redesigned to lessen their environmental impacts.

These products have shown that through clever design consumer items can be made using less toxic and less environmentally damaging raw resources. They have also shown how manufacturing processes can be designed to waste less water, energy and materials; and how the products can be designed to operate using less water, energy and materials. In addition the products are designed so that at the end of their useful life they can be dismantled and efficiently recycled. This initiative has shown that quality products can incorporate environmental features without losing their amenity and that there is a market in environmentally conscious design.

The Industry Innovation Program provides grants for research and development in environment technology. A government funded inquiry into urban air pollution is being conducted by the Australian Academy of Technological Sciences and Engineering is investigating solutions involving environmental technology.

Environment Australia commissioned a study to review and investigate current and potential initiatives in Australia to change consumption patterns. The report: *More with Less - Initiatives to Promote Sustainable Consumption*, broadly categorises current initiatives and assesses the relative success of each measure in affecting consumption in a manner which reduces its environmental impact. The main initiatives analysed for areas of activity include: product and material purchase, use, disposal and recycling; travel and transport, vehicles and fuel, urban form and design, energy efficiency, food, clothing, cosmetics and pharmaceutical's, chemicals and cleaning supplies, water use and disposal, gardens, vegetation and pets, recreation, and investment. The report also identifies further areas of activity which offer significant potential for measures to reduce the environmental impact of consumption.

3. Major Groups:
A wide range of NGO's are involved in initiatives aimed at promoting sustainable consumption and production.

4. Regional/International Cooperation:
Australia has supported and participated in international work on sustainable consumption with the OECD and the United Nations Commission on Sustainable Development, including: the workshop on Policy Measures for Changing Consumption Patterns hosted by the Republic of Korea in September 1995; the OECD Experts Workshop on Sustainable Water Consumption in February 1997; and the Review Meeting of the OECD Sustainable Consumption and Production Programme, held in Sydney in February 1997.

STATISTICAL DATA/INDICATORS				
	1985	1990	1992	
GDP per capita (current US$)	10,683	17,343	16,715	
Real GDP growth (%)	3.9	-0.5	2.5	
Annual energy consumption per capita (Kg. of oil equivalent per capita)	4,996[a]	5,209	5,163	
Motor vehicles in use per 1000 inhabitants	531.2	556.1	563.6	
[a] 1989				

AGENDA 21 CHAPTER 5: DEMOGRAPHIC DYNAMICS AND SUSTAINABILITY

NATIONAL PRIORITY: Addressed in the National Strategy for Ecologically Sustainable Development

STATUS REPORT:

Australia's population passed 18 million in March 1995 and is growing at a rate of about 1 percent per year. While relatively high compared to other OECD countries, this rate is comparable to other immigrant receiving countries. It is similar to that of the United States and lower than that of New Zealand and Canada. Population projections show a clear long term trend declining from current rates of between 1 percent and 1.3 percent annually to between 0.2 percent and 0.5 percent by 2051. If there was no net gain from overseas migration, the growth rate would be even slower with the projected total population peaking at around 20.7 million in the year 2033 and declining to 20.1 million by 2051.

While Australia's overall population density of 2.3 persons per km^2 is very low, over 80% of the population is concentrated in a narrow corridor along the east, south-east and south-western coastal region, representing only 5% of the total land area. Australia is also highly urbanised with 85% of the population living in urban centres of at least 10,000 people. About 39 percent of the population live in only two cities, Sydney and Melbourne.

The extent to which population factors affect the environment has not been clearly established. Factors relating to population and environmental degradation include patterns of population distribution, patterns and levels of consumption, public sector pricing policies, lifestyle choices, technology paths, land management practices and product mix at national and regional levels. Non-permanent population flows, such as tourism, also impact on the environment.

Population pressures can be seen to contribute to environmental degradation, especially in large urban areas and in certain high growth coastal regions, where native habitat and wetlands are often at risk, as well as agricultural areas with fragile soils. The environmental and economic impact of the urban nature of Australia's population has led the Government to look at ways to promote greater migration away from metropolitan centres. The following schemes have recently been introduced into Australia's immigration program to facilitate this:

- The Regional Sponsored Migration Scheme - enables employers in regional Australia who are unable to meet their skilled workforce needs form the local labour market, to nominate people from overseas or already in Australia temporarily, to settle and work in their region.
- The Regional Family category - provides an advantage to skilled people from overseas wishing to migrate to Australia who have extended family living in specific designated areas away from major capitals who are willing to sponsor them.

Linkages between population and environmental degradation have been considered by a number of government inquiries into population, including the National Population Council report titled "Population Issues and Australia's Future: Environment, Economy and Society". In 1994, the House of Representatives Standing Committee for Long Term Strategies conducted an inquiry into Australia's population carrying capacity. The Committee rejected the view that Australia is already close to its maximum carrying capacity and the notion of a single optimum population target. It recommended the adoption of a population policy and a consumption strategy, noting the importance of consumption patterns in determining the environmental impact of any given level of population

Australia does not have a formal population policy, although it is keeping the issue under consideration. A formal immigration policy is in place.

CROSS-SECTORAL ISSUES

1. Decision-Making Structure:

The Department of Immigration and Multicultural Affairs (DIMA) has primary responsibility for broad population issues at the national level. The Australian Agency for International Development (AusAID) has responsibility for family planning related issues in Australia's overseas aid program.

2. Capacity-Building/Technology Issues:

There is considerable research being undertaken in Australia on population issues by a wide range of organisations,

including Federal Government agencies, universities and private institutions. Each year, DIMA produces reports based on statistical data and research are compiled on the following issues: population size, growth and composition, natural increase, international migration, regional patterns of population growth and decline, and population projections.

The information base on population issues is being developed to encourage informed debate on the central issues. All completed population related publications are indexed in Population Index, a world-wide quarterly bibliography published by the Office of Population Research, Princeton University, and now available on the Internet. Material on population is also available in the Multicultural Australia and Immigration Studies Database which is generally accessible in Australian libraries through Computer links to the National Library of Australia.

3. Major Groups

At the community level, NGOs have held a range of seminars on the linkages between population and the environment and on family planning issues.

STATISTICAL DATA/INDICATORS

	1990	1993	
Population (Thousands) mid-year estimates	17,065	17,661	
Annual rate of increase (1990-1993)		1.1	
Surface area (Km^2)		7,713,364	
Population density (people/Km^2)		2.3	

AGENDA 21 CHAPTER 6: PROTECTING AND PROMOTING HUMAN HEALTH

NATIONAL PRIORITY: Addressed in the National Strategy for Ecologically Sustainable Development

STATUS REPORT:

The Australian Health and Community Services Ministers have supported the development of a National Public Health Partnership between the Commonwealth, State and Territories as a coordination and collaboration mechanism that adds value to the work of each jurisdiction. The development of the partnership has been seen as an opportunity to place public health at the forefront of effective healthcare in Australia.

Included in the Partnership will be the recently formed Directors of Environmental Health Forum, which includes representatives from all governments. The Directors of Environmental Health (DEH) has been identified as crucial to intergovernmental cooperation on environmental health. DEH promotes uniformity and reduction of duplication across a range of environmental policy issues and technical initiatives; provides a conduit for information and expertise transfer, particularly with the World Health Organisation, OECD and regional health agencies. It also provides advice, including public education, on a wide range of environmental health issues.

A National Environmental Health Strategy will be developed to place environmental health within an integrated framework that includes environmental , social and economic factors such as housing, transport, urban and rural design and management. The Australian health insurance system, Medicare, guarantees access for all Australians to public hospital and medical services. The Pharmaceutical Benefits Scheme provides access to essential medicines at reduced costs.

The National Occupational Health and Safety Commission provides a national mechanism for addressing productivity and equity issues. The Commission has endorsed a set of principles governing the relationship between occupational health and safety and ecologically sustainable development. It has declared exposure standards for a number of workplace hazards and has a National Strategy for the Management of Chemicals Used at Work. The Commission has also endorsed a National Data Set for Workers Compensation Statistics as the primary source of national data on occupational health and safety performance. It has strategies for handling priority hazards of chemicals, occupational skin disorders, occupational noise inducing hearing loss, occupational back pain and mechanical equipment injury. The Government is developing health impact assessments in the workplace and includes occupational health and safety in environmental impact assessment.

Australia has a strong commitment to strengthening families, particularly in parenting and caring roles. It views family and parenting support as pivotal in reducing the long term incidence of child abuse and in increasing the psycho-social health of Australians. Australia is also committed to improving the supply, affordability and quality of childcare. An extensive range of services has been developed to meet the needs of children and families, including those who are socially or economically disadvantaged.

The national communicable diseases surveillance programs are aimed at ensuring a prompt and coordinated response to any outbreaks of communicable diseases and improving the status of children. Special programs address HIV/AIDS. The Australian Institute of Health and Welfare is an independent Statutory authority which undertakes statistical and research work in the health and welfare areas, providing support to the Federal and State/Territory Governments.

CROSS-SECTORAL ISSUES

1. Decision-Making Structure:

Australian constitutional arrangements place implementation of health policy, programs and promotion within the ambit of State/territory Governments. The Federal Government role is one of leadership, coordination, harmonisation of approach and international health activities.

2. Capacity-Building/Technology Issues:

The Commonwealth Health Research Program provides funding through several research granting schemes for research into all aspects of health and health services. The principal source of funding for this research is the National Health and Medical Research Council (NHMRC). The NHMRC provides a wide range of research grants and training awards to individual researchers and research institutes. The NHMRC Environmental Toxicology Centre undertakes research into all aspects of plant toxins, soil and water contaminants and other potential environmental hazards. Specific funding programs through NHMRC and the Federal Department of Health and Family Services are provided for research into public health, health and welfare services, mental health, HIV/AIDS, and indigenous health issues.

The Rural Health Support, Education and Training Program aims to provide recruitment of health workers in rural and remote areas by increasing education, training and support opportunities. Initiatives include the development of culturally

appropriate curricula for Aboriginal Health Workers, a manual for primary clinical care, and an education and training program for managing children, domestic violence and suicide behaviour among adolescents.

3. Major Groups:
Vulnerable groups, including infants, youth, women, Aboriginal and Torres Strait Islander groups, the aged and people from non-English speaking backgrounds, receive special priority in Australian health programs.

Available data shows that the life expectancies in 1992-94 for Aboriginal and Torres Strait Islander men and women were 15-20 years below those of other Australians. The National Aboriginal Health Strategy (NAHS) aims to improve the health status of Aboriginals and Torres Strait Islander people, and has informed policy development in Aboriginal Health since 1989. The strategy addresses primary health care, environmental health, and community infrastructure issues. From 1 July 1995, responsibility for funding Aboriginal and Torres Strait Islander health and substance abuse services was transferred from the Aboriginal And Torres Strait Islander Commission (ATSIC) to the Federal Department of Health and Family Services. The Department funds 164 such services, the vast majority of which are controlled by local communities. Special programs focus on mental health and hearing services for Aboriginal people. Health Framework agreements between the Federal and State/Territory Governments, ATSIC and indigenous health organisations are being signed to ensure joint priority setting, planning and coordinated delivery of health care for indigenous Australians. Trials are being conducted to test innovative ways to fund and deliver health services for Aboriginal and Torres Strait Islander people using models of care coordination and pooled funding.

The National Women's Health Program includes sub-programs such as the Alternative Birthing Services Program, the Family Planning Program, the National Program for the Early Detection of Breast Cancer, and Cervical Cancer screening. Within the Disability Services Program, a range of NGOs and local government bodies are funded to provide support services in an innovative manner for people with a disability. Elderly people receive assistance with residential and home and community care services. A National Action Plan for Dementia Care aims to improve services for people with dementia and their care givers.

4. Finance:
Within the development cooperation program, in 1994/95, funding for health aid activities was about $A 80 million.

5. Regional/International Cooperation:
Within the development cooperation program, health policy is based on the strategy of primary health care endorsed by WHO. A special theme of assistance is Women and Their Children's Health. HIV/AIDS activities and family planning/reproductive health are of increasing importance. Australia participants in the WHO Global Program on AIDS. The Government cooperates with ILO in the occupational health and safety area.

STATISTICAL DATA/INDICATORS

	1980	1990	1994
Life expectancy at birth: Male	70.1	73.9	75.0
Female	77.0	80.0	80.9
Infant mortality (per 1000 live births)	13	8.2	5.9
Maternal mortality rate (per 100000 live births) #	10	4.9[a]	na
Access to safe drinking water (% of population)	99	99	99

[a] 1988-90 # Direct Maternal Deaths are those relating from obstetric complications of the pregnant state, from interventions, omissions, or incorrect treatment.

AGENDA 21 CHAPTER 7: PROMOTING SUSTAINABLE HUMAN SETTLEMENT DEVELOPMENT

NATIONAL PRIORITY: Addressed through the National Strategy for ESD and initiatives outlined below

STATUS REPORT:

Australia is one of the most urbanised countries in the world, with about 85% of its population living in urban areas. The rate of urban growth has resulted in severe environmental and social consequences which threaten the high quality of life currently found in Australian towns and cities. In 1992, a National Housing Strategy was completed, putting forward a comprehensive set of national housing and urban policies and setting objectives for expanding the range and supply of affordable and appropriate housing. The Australian Urban and Regional Development Review was carried out in 1993 to 1996. The outcomes of the Review offer significant potential to address human settlements in an environmentally sustainable manner. The Review considers the relationship between energy use, urban form, transport and housing design.

The National Urban Development Program promotes an improved range of housing types, making more efficient use of land and infrastructure, and reforming planning processes at the local level. It includes the Australian Model Code for Residential Development (AMCORD). The National Strategy for the Conservation of Biological Diversity refers to the conservation of biodiversity in urban areas and includes bioregional planning, habitat retention and providing public information. A national program to plant one billion trees by the year 2000 addresses both rural and urban areas. The National Local Government Environment Resources Network and the Local Government Environment Information Exchange Scheme are providing information and support to local government for better environmental management.

Both the National Water Quality Management Strategy and the National Landcare Program address the issues of water supply and waste water treatment in urban areas. Waste management is being addressed through a number of Government activities. The Australian Housing Industry Development Council is examining the recycling of building materials and mechanisms for the disposal of builders' rubble. The National Strategy for Ecologically Sustainable Development promotes the implementation of travel demand strategies and management techniques such as the integration of land use and transport planning to minimise the need of fossil fuel-based transport.

CROSS-SECTORAL ISSUES

1. Decision-Making Structure:

The Planning Ministers' Conference acts to promote an integrated approach to urban and regional planning which covers regulatory, microeconomic, environmental and social issues. Membership consists of the Federal, State, Territory and New Zealand Ministers responsible for planning.

2. Capacity-Building/Technology Issues:

The Integrated Local Area Planning Program (ILAP) is the key program designed to build the capacity of local governments in urban management. A pilot study of 20 councils aims to build the capacity of local governments to reform strategic planning and decision-making processes to ensure a more holistic approach with and between local governments and the integration of regional and State Government plans. The Australian Housing and Urban Research Institute was established to promote research into social and economic aspects of housing and related issues. The Institute has been encouraging all aspects of the urban environment to be addressed in an integrated manner.

3. Finance:

The Federal-State Housing Agreement provides funding for housing assistance for people on low income.

4. Regional/International Cooperation:

The quality of the urban environment is an increasingly important issue in the national development cooperation program. Australia participated in HABITAT and supporting agencies, ESCAP and the ADB. Australia has relevant expertise especially in land title registration, urban infrastructure, land use planning and waste management and is cooperating, e.g. with Thailand.

STATISTICAL DATA/INDICATORS			
	1990	**1995**	
Urban population in % of total population	85.1	84.7	
Annual rate of growth of urban population (%)	1.5	1.3	
Largest city population (in % of total population)	20.9	19.9	

AGENDA 21 CHAPTER 8: INTEGRATING ENVIRONMENT AND DEVELOPMENT IN DECISION-MAKING

NATIONAL PRIORITY: Addressed by the National Strategy for Ecologically Sustainable Development

STATUS REPORT:

Australia has initiated a variety of strategies and processes in recent years in an attempt to improve the quality of decision-making through integrating environment and development considerations. These efforts are guided by the National Strategy for Ecologically Sustainable Development (NSESD), which states that 'decision making processes should effectively integrate both long and short term economic, environmental, social and equity considerations'. They need to be seen in the context of Australia's federal structure and the lack of specific reference to the environment in the Australian Constitution. State and Local Government Authorities have the major decision-making powers in land use management and most development decisions occur at the local level.

The Council of Australian Governments is the most senior intergovernmental forum of all Australian Governments, consisting of the heads of the Federal, State and Territory Governments, and the President of the Australian Local Government Association. There are also intergovernmental Ministerial councils which meet to improve coordination and cooperation on national or common issues in their relevant portfolio areas.

Institutional arrangements have been supplemented by the InterGovernmental Agreement on the Environment(IGAE) of May 1992 which provides a cooperative framework to coordinate government activities and the National Environmental Protection Council (NEPC), recently established to develop national measures for environmental protection. The Federal Government and States have proposed and implemented a number of administrative reforms, including changes to Cabinet processes in some jurisdictions, to ensure the incorporation of ESD principles in existing institutional arrangements and reviews of the activities of government agencies. Effort has been put into improving the coordination of land use planning issues within the State Government jurisdictions.

The Intergovernmental Committee for ESD (ICESD) coordinates and reviews the NSESD and oversees the operation of the IGAE. The Committee reports to the Council of Australian Governments on progress in implementing the national strategy.

CROSS-SECTORAL ISSUES

1. Decision-Making Structure:

At the Federal level, Environment Australia provides national leadership to intergovernmental consideration of these issues.

2. Capacity-Building/Technology Issues:

Australia is implementing economic instruments and developing the use of market-based mechanisms which incorporate the environmental and social costs of resource use into pricing. Measures under way include improved pricing and allocation of water, cost recovery for solid waste disposal and a price differential for leaded petrol. A compendium of Australia's experience in using economic instruments to meet environmental objectives has been prepared by Environment Australia.

3. Major Groups:

A consultative approach is the cornerstone to Australia's policy development and considerable effort is devoted by all three spheres of government, non-government organisations and community groups to cooperative approaches to these issues. This is reflected in the development of national strategies, agreements, and organisations and forums which specifically deal with national and international environment and sustainable development matters.

4. Finance:

The Australian Bureau of Statistics has developed national accounts balance sheets to include the market value of natural assets including forests, subsoil assets and land. These estimates are based on resource use values and exclude non-monetary environmental values. The Commonwealth has recently published a handbook on a range of techniques for environmental valuation and their application in decision making. The Australian Bureau of Statistics is also developing a

range of environmental accounts, including physical accounts in an input-output framework, and financial accounts for environmental protection.

AGENDA 21 CHAPTER 9: PROTECTION OF THE ATMOSPHERE

NATIONAL PRIORITY: Addressed by the Revised Strategy for Ozone Protection in Australia (1994), the National Greenhouse Response Strategy and the NSESD

STATUS REPORT:

The Montreal Protocol on Substances that Deplete the Ozone Layer, and its Amendments

- Montreal Protocol (1987) ratified 19 May 1989
- London Amendment (1990) ratified 11 August 1992
- Copenhagen Amendment (1992) ratified 30 June 1994
- The latest report(s) to the Montreal Protocol Secretariat were prepared in 1996

United Nations Framework Convention on Climate Change

- UNFCCC was ratified 31 December 1992.
- The latest report to the UNFCCC Secretariat was submitted in 1994.

Additional comments relevant to this chapter

The National Greenhouse Response Strategy (NGRS) was endorsed by the Council of Australian Governments in December 1992 and is the primary mechanism by which Australia meets its commitments under the United Nations Framework Convention on Climate Change (UNFCCC).

Actions taken by Australia to reduce net greenhouse emissions to date are projected to result in a reduction by more than half of the 14% growth in greenhouse emissions expected between 1990 and 2000. A comprehensively revised set of projections is currently being prepared for the next National Communication, due in 1997.

A major review of the NGRS is currently being undertaken. This review is examining the effectiveness of the current NGRS in reducing greenhouse emissions, identifying the need for further or modified responses, determining priority areas for action and developing broad options for further action and new measures. Federal, State, Territory and local Governments are working to produce a revised NGRS by about mid 1997.

Australia's greenhouse response will continue to be comprehensive and address all sectors including energy use and supply, transport, urban planning, and sink enhancement.

In addition the Government has set in train some important and practical actions to further reduce greenhouse. Key Government action includes: a strong commitment to working with industry to reduce greenhouse gas emissions, particularly through the Greenhouse Challenge - a program of cooperative agreements with companies across the whole range of industry sectors; development of a White Paper on sustainable energy, which will give special attention to options, costs and benefits of greenhouse gas abatement measures; and promotion of sustainable agricultural and landcare practices, which have the potential to bring significant greenhouse benefits.

Considerable attention has been directed towards the improved understanding and management of urban airsheds with significant studies addressing regional air pollution in NSW, Western Australia, south-east Queensland and Tasmania. Lead emissions continue to fall in urban areas with the increased use of unleaded petrol and the reduction of lead levels within leaded petrol. Oil industry forecasts suggest that leaded petrol will cease to be available in Australia by between 2002 and 2007.

In 1996 the National Environment Protection Council commenced work on the development of national ambient air quality standards. Standards will initially be prepared for the six most significant air pollutants to which the majority of Australians are exposed—carbon monoxide, nitrogen dioxide, photochemical oxidants (as ozone), sulphur dioxide, lead and particles.

The Commonwealth Ozone Protection Program continues to ensure that Australia meets its international obligations under the Montreal Protocol on Substances that Deplete the Ozone Layer. The program works domestically with relevant industry sectors, government and the community to develop strategies for the phase out of ozone depleting substances which either meet Protocol targets, or go beyond these targets wherever it is practical to do so. The program also

contributes to international efforts in ozone layer protection to ensure that Australia's achievements are not eroded by a lack of adequate or timely action in the rest of the world.

The Commonwealth's ozone protection legislation was revised in 1995 bringing in a new set of controls on all ozone depleting substances from 1 January 1996. Australia phased out its consumption of CFCs, methyl chloroform and carbon tetrachloride by 31 December 1995, but does allow import of these substances for a strictly limited range of essential uses permitted under the Montreal Protocol (such as metered dose inhalers and laboratory uses). Halon consumption was phased out by 31 December 1994, one year ahead of the requirements of the Protocol. Consumption of HCFCs and methyl bromide will be phased out gradually over the next 10-20 years in line with Protocol obligations.

Australia undertakes a significant atmospheric observational program. An essential element in the detection and monitoring of climate change is the measurement of atmospheric trace gases, including greenhouse gases and aerosols, and ozone depleting substances at the Baseline Air Pollution Station and is complemented by the systematic observation of conventional meteorological parameters (including solar radiation) and the establishment of a set of Reference Climate Stations to detect changes in climate.

There is a wide range of research activities within Australia addressing climate change. Global climate models are extending the understanding of climate processes with recent developed coupled atmosphere-ocean models used to simulate climate change associated with a steady increase in greenhouse gas concentrations. Investigation on climate change impacts and adaptation has focussed on policy relevant research, enabling it to contribute to national policies on climate change and the environment. Investigations undertaken as a result of impacts funding have covered coasts, agriculture and rangelands, native ecosystems, the El Nino Southern Oscillation phenomenon, and human health.

A first comprehensive National Greenhouse Gas Inventory for 1988 and 1990 was published in 1994. Inventories for the period 1988-1994, using an updated methodology, were compiled and released in 1996.

CROSS-SECTORAL ISSUES

1. Decision-Making Structure:
The National Environment Protection Council (NEPC) was established to introduce measures for the protection of the environment in specified areas, including ambient air quality. These measures will be legally binding on all parties. Complementary legislation has been put in place and the setting of national air quality standards has been facilitated.

2. Capacity-Building/Technology Issues:
The Dedicated Greenhouse Research Grants Scheme was established to enhance climate change research. The Cooperative Research Centre for Black Coal Utilisation was established in 1995. A National Halon Bank has been established to collect, safely store, recycle and destroy Australia's excess halon. The Cleaner Production Case Studies Directory has been developed to give industry easy access to case study information on cleaner production measures used in a wide variety of industries. It can be accessed via the internet at: http://www.erin.gov.au/net/environet.html. A national inquiry into solutions for urban air pollution conducted by the Australian Academy of Technological Sciences and Engineering will report its findings in late 1997. The Cooperative Research Centre for Southern Hemisphere Meteorology is undertaking modelling and diagnostic studies of climate processes in the southern hemisphere and modelling and prediction of stratospheric ozone behaviour. An Australian Cooperative Research Centre for Renewable Energy was established in July 1996.

3. Finance:
Australia has contributed A$10 million from 1994 to 96 to the Montreal Protocol for the transfer of ozone-friendly technology to developing countries. AusAID's integration of environmental concerns into the aid program in recent years has given increased priority to climate change activities. Australia has provided A$90 million to support approximately 50 current bilateral and regional projects across the Asia-Pacific region and also in Africa, which would contribute positively to greenhouse gas abatement. Australia has also committed nearly A$73 million to the Global Environment Facility for the period 1991-2 to 1996-7.

4. Regional/International Cooperation:
Australian scientists have played an active role in the various components of the World Climate Research Programme including the World Ocean Circulation Experiment, the Global Energy and Water Cycle Experiment

and the Tropical Ocean-Global Atmosphere (TOGA) program and in the IPCC. Australia has provided funding to the WMO to carry out a Climate Monitoring and Impacts Study in the South Pacific region.

The development cooperation program provides funding for a range of bilateral projects which address climate change. Promoting cleaner energy is a particular focus in this sector. Expertise is provided, inter alia, in improvements in coal based energy production. A Global Change Impact Centre is being established in Indonesia to serve as a resource base of scientific expertise on the effects of global change in South East Asia

STATISTICAL DATA/INDICATORS		
	1990	**1994**
CO_2 emissions (million tons)	394	410
CH_4 * (million tons CO_2 equivalent)	136	136
Australia is involved in the planning and implementation of the Global Climate Observing System (GCOS) and the complementary Global Ocean Observing System (GOOS). In 1995 the Bureau of Meteorology designated some 100 surface observing stations as Reference Climate Stations.		

CONSUMPTION OF OZONE DEPLETING SUBSTANCES IN AUSTRALIA

	Consumption* (metric tonnes)				
Substance	1991	1992	1993	1994	1995
CFCs	7143.8	5751.25	5310	3954.165	2839.177
Halons	122.2	52.43	0	0	0
Methyl chloroform**	4680	5086	3585.85	2272.61	846.44
Carbon tetrachloride			0.19	0.68	0.16
HCFCs			3303.9	1755.47	2337.733
HBFCs			0	0	0
Methyl bromide			1087	n/a	664.37

* Consumption = (production + import) less export)

** Includes carbon tetrachloride for 1991 and 1992

AGENDA 21 CHAPTER 10:INTEGRATED APPROACH TO THE PLANNING AND MANAGEMENT OF LAND RESOURCES

NATIONAL PRIORITY: Addressed by the National Strategy for Ecologically Sustainable Development

STATUS REPORT:

Within the framework of the NSESD there is a number of strategies and plans which provide a focus for particular resource issues, including the National Strategy for the Conservation of Australia's Biological Diversity, the revised National Overview for the Decade of Landcare Plan (the main strategic plan for the National Landcare Program), the National Water Quality Management Strategy, the Council of Australian Government (COAG) Water Reform Framework, the draft National Weeds Strategy and the draft National Strategy for Rangeland Management.

Within this context, governments have a range of measures to address sustainability issues. These include: support for research and enhanced access to information by landholders and community groups, regulatory approaches, such as restrictions on land clearing, market based mechanisms, such as subsidies to encourage sustainable land management practices, mutual agreement through intergovernmental mechanisms such as the Murray-Darling Basin Commission, the capping of water allocations in the Murray-Darling Basin, and measures which affect property rights. The complex nature of the causes of sustainability problems and the range of participants suggest a mix of instruments is needed to provide solutions.

The following programs support integrated approaches to the planning and management of land resources:

- the National Landcare Program which provides support for natural resource management projects with a production-oriented or nature conservation focus.
- landcare related forestry programs - the Farm Forestry Program (FFP) and the North Queensland Community Rainforest Reforestation Program (CRRP)
- the Vertebrate Pest Program (VPP) and the Feral Pests Program (FPP). The FPP focuses on the impact of feral pests on native species and the natural environment, while the VPP aims to reduce the impact on agricultural production.
- the States Cooperative Assistance Program which seeks to develop nature conservation projects of national or international significance in cooperation with the States and Territories
- the Grasslands Ecology Program which focuses on identifying important remnant native, grasslands and grassy woodlands, and developing strategies in consultation with the States/Territories to ensure their protection
- numerous State and Territory based programs employ integrated catchment management techniques, including programs directed at the Johnstone River region in Queensland and the Peel/Harvey area of Western Australia.
- joint Federal/State co-operative programs on land use planning such as the development of the Cape York Peninsula Land Use Strategy.

Several structural changes have been made to help integrate planning and management of land resources including the amalgamation of separate Ministerial Councils concerned with soil conservation, water resources and agriculture into one Council - the Agriculture and Resource Management Council of Australia and New Zealand; and the amalgamation of a number of Federal programs concerned with separate resources (soil, water and vegetation) into the NLP.

The Government will fund an environment package of about $1.25 billion over five years from 1996-97, administered through the Natural Heritage Trust of Australia. A substantial proportion of these funds will be devoted to programs to support sustainable land management.
Additional funding is intended for the Murray-Darling Basin Initiative, the National Landcare Program, the National Land and Water Audit, the National Reserve System, the National Feral Animal Control Strategy, the National Weeds Strategy, National Vegetation Programs, and the Endangered Species Program. A simplified program delivery process is being prepared and aims to enhance the One-Stop Shop assessment process, and regional approaches to project development based on co-operative Partnership Agreements between the Commonwealth and the State/Territory Governments, and involving Local Government. These agreements will encompass the range of activities funded through the NHT and accommodate all relevant portfolios and program elements.

Pending passage of the legislation establishing the Trust, the Government has provided additional funding of about $30 million in 1996-97 to maintain key programs related to Trust initiatives.

CROSS-SECTORAL ISSUES

1. Decision - Making Structure:
Responsibility for natural resource planning and management rests primarily with the six State, Territory and Local Governments. At the Federal level, the Department of Primary Industries and Energy (DPIE) and the Department of the Environment, Sport and Territories (DEST) are the main agencies responsible for environment and natural resource management. Local governments play a key role, as they have responsibility for many of the planning and management decisions at the local level.

Coordination of environment and natural resource policies and decision making within Australia is achieved in a number of ways. Ministerial Councils, which comprise Ministers from the relevant portfolios of each State/Territory and the Federal Government, play an important role. These Councils include the Council of Australian Governments (COAG), comprised of First Ministers from Federal and State/Territory Governments, the Agricultural and Resource Management Council of Australia and New Zealand (ARMCANZ), the Australian and New Zealand Environment and Conservation Council (ANZECC), the Ministerial Council of Forestry, Fisheries and Aquaculture (MCFFA) and the Australian and New Zealand Minerals and Energy Council (ANZMEC). Another way in which coordination is achieved is through intergovernmental committees of officials, such as the Sustainable Land and Water Resources Management Committee (SLWRMC), the Sustainable Resources Sub-Committee (SRS) and the Australian New Zealand Land Information Council (ANZLIC).

2. Capacity - Building/Technology Issues:
Universities and a variety of Federal and State bodies are undertaking research into natural resources management: the Commonwealth Scientific Industrial Research Organisation (CSIRO), the Bureau of Resource Sciences and a number of joint industry-government funded R&D corporations such as the Cooperative Research Centre for Freshwater Ecology. The Land and Water Resources Research and Development Corporation (LWRRDC) funds and manages research programs to help develop better and more sustainable use of Australia's natural resources and thus help to maintain the industries and people reliant on those resources. ANZLIC is making geographical data more accessible to the community through the coordination of policy, the development of data standards and the implementation of a national data directory system.

3. Major Groups:
Private landholders play a key role in decision making as most agricultural land is privately owned or managed under leasehold arrangements. Indigenous peoples are substantial land managers and occupy about 18.4 per cent of the extensive rangelands area. Governments establish the broad framework for decision making through economic, social and environmental policies, standards and laws and through tenure systems.

4. Regional/International Cooperation:
Australia's overseas aid program contains a number of activities which specifically focus to support to integrated land resource planning and management. Examples include the Land Titling Projects in Thailand and Indonesia, the recently completed Remote Sensing and Natural Resources Management and Development projects in the Philippines and the Land Mobilisation project and support for the National Forestry and Conservation Action Program in Papua New Guinea. Many of AusAID's activities in other sectors also support the improvement of land resource planning and management capacity.

AGENDA 21 CHAPTER 11: COMBATING DEFORESTATION

NATIONAL PRIORITY: Addressed by the National Forest Policy Statement

STATUS REPORT: Australia supports the "Non-legally binding authoritative statement of principles for a global consensus on the management, conservation and sustainable development of all types of forests".

The Australian Federal, State and Territory Governments have agreed on a National Forest Policy to cooperatively achieve their vision for the forest estate and to ensure that the community obtains a balanced return from all forest uses. The policy involves broad national goals which are being pursued within a regionally based planning framework that integrates environmental, economic, social and commercial objectives.

A key element of the approach adopted in the national policy involves regional forest agreements between the Federal and State Governments which are being developed following comprehensive studies of forest values and consultation with stakeholders. The agreements will seek to conserve the full suite of environmental and heritage values that forests can provide for current and future generations by ensuring the forest conservation reserve system is comprehensive, adequate and representative and through the complementary management of forests outside reserves. Secure access to wood resources will be provided through these agreements, enabling continued development of internationally competitive and ecologically sustainable industries.

Comprehensive regional assessments of forest values and management systems are currently underway throughout the major forest regions of Australia. As an interim measure, approximately 6 million hectares of forest have been temporarily set aside from logging until regional forest agreements are finalised. These arrangements will ensure that options remain open from which to establish a comprehensive, adequate and representative reserve system. The following criteria will be applied flexibly to define these forest reserves - 15% of the pre-1750 distribution of each forest type, 60% of the old-growth forest and 90% or more of high quality wilderness. About 20% of forests are in declared nature conservation reserves with at least a further 8% managed as conservation reserves within multiple use forests, also known as State Forests. Most States already have comprehensive codes of forest practice in place.

Australia is a member of the Montreal Process Working Group and hosted the eighth meeting of the Montreal Process in 1996. Australia's national forest policy provides the opportunity to incorporate internationally agreed criteria and indicators into its forest management practices. Developing a framework of regional indicators based on the Montreal Process is now a priority in Australia.

The Farm Forestry Program was established in 1993 to promote commercial wood production on cleared agricultural land and where possible, the integration of plantation enterprises with other agricultural land uses. In 1996, the Government announced funding of nearly $15 million for more than 50 projects under this Program over the next four years.

Over the past five years, Australia's forest plantation estate has expanded by about 25,000 hectares a year. Federal, State and Territory Governments and industry have endorsed a goal of trebling the plantation estate by the year 2020. Plantations account for about half the domestic timber used for production of wood and paper products in Australia. Two national plantation goals have been identified: to expand Australia's commercial plantations to provide an additional, economically viable, reliable and quality wood resource for industry, and to increase planting to rehabilitate cleared agricultural land, improve water quality and meet other environmental, economic or aesthetic objectives.

The Community Rainforest Reforestation Program in North Queensland was developed as part of responses to the cessation of logging following listing of the Wet Tropics of Queensland World Heritage Area. It aims to develop plantations of high quality cabinet timbers for future high value added products.

A four year Forest Ecotourism Program to encourage and facilitate ecologically sustainable forest tourism, development and operations concluded in 1996 after funding 72 projects with a budget of $1.9 million.

CROSS-SECTORAL ISSUES

1. Decision-Making Structure:
State and Territory Governments have primary responsibility for forest management while the Federal Government is responsible for coordinating a national approach to environmental and industry development issues. The Commonwealth, States and Territories have legislative provision for assessing the environmental impact of forestry project proposals. The Commonwealth and most States and Territories have legislation in place for the protection of endangered flora and fauna.

The Commonwealth also has obligations under the Convention for Biological Diversity and the World Heritage Convention.

2. Capacity-Building/Technology Issues:
A National Forest Inventory was set up in 1989. It is complemented by the National Resource Information Centre and the Environmental Resources Information Network. A Wilderness Inventory is being carried out. A national State of the Forests report is to be produced every five years, beginning in 1996.

A Wood and Paper Industry Strategy was announced in 1995 and comprises a four year Federal Government initiative to encourage investment, value adding and jobs growth in the forest industries. The Strategy details actions to promote continued development of a diverse, internationally competitive industry based on ecologically sustainable management practices. It is a key element in integrating of industry and conservation objectives for Australia's native forests and plantations.

Continued research and development into Australia's forests and forest industries is undertaken by the Forest and Wood Products Research and Development Corporation, the Commonwealth Scientific and Industrial Research Organisation, universities, State agencies and private companies.

3. Major Groups:
The Federal Government is currently reforming national forest stakeholder advisory bodies to ensure communication between governments, industry, unions and conservation organisations. In 1992, the High Court of Australia gave formal recognition to the common law native title rights of Australia's Indigenous inhabitants and the Federal Government passed the Native Title Act 1993 as a consequence.

4. Finance:
The Federal Government has no responsibility for direct land use management. However in the 1996 Budget, the Federal Government committed $183 million for a range of forest management initiatives including regional forest assessments and agreements, the industry strategy and the forest industry structural adjustment package.

5. Regional/International Cooperation:
Australia has continued to promote the development of sustainable forest management in international fora as well as supporting regional initiatives. As part of Australia's contribution to the work of the United Nations' Commission on Sustainable Development's Intergovernmental Panel on Forests, Australia hosted the International Conference on Certification and Labelling of Products from Sustainably Managed Forests in 1996. The objective of the Conference was to advance international dialogue on certification and labelling as a means of achieving sustainable forest management

Having endorsed the Santiago Declaration, Australia has continued its involvement in the Montreal Process Working Group including participation in the Group's Technical Advisory Committee.

Consistent with national policy on tropical forest conservation and sustainable use, Australia ratified the International Tropical Timber Agreement 1994 on 2 February 1996. Australia reaffirmed its commitment to the objective of achieving sustainable forest management of all forests by the Year 2000 through supporting the bringing into force of the Agreement in Geneva in September 1996.

Australia is a major supporter of the World Heritage Convention and already has a number of World Heritage areas containing significant forest, including the Tasmanian Wilderness World Heritage Area, the Wet Tropics of Queensland, Fraser Island, the Central Eastern Rainforest Reserves (Australia), and Kakadu National Park.

Australia also supports a range of forestry research activities through the Australian Centre for International Agricultural Research. AusAID, the Australian Agency for International Development, uses a variety of aid channels which benefit tropical forests/forestry and conservation especially in the Asia-Pacific region. This occurs through projects under country and regional programs and contributions to multilateral agencies, international initiatives and regional organisations including the World Bank and ITTO among others. Expenditure in the forest sector has doubled in nominal terms in the last five years, reaching $15.6 million in 1995-1996.

STATISTICAL DATA/INDICATORS			
	1985	**1990**	**Latest 1996**
Forest Area (km^2) *1 Figures reported by Australia to FAO	n/a	408,230	409,000
NFI forest - dense, closed NFI forest - sparse (woodland)		n/a	432,000 1,121,000
Protected Forest Area (km^2) *2 Figures reported by Australia to FAO	n/a	n/a	66,000
NFI forest - dense, closed NFI forest - sparse (woodland)			83,000 92,000
Roundwood production (solid volume of roundwood without bark in mill m^3) *3	16.7	17.6	19.6
New Areas of Plantations (km^2) *4	298	230	137 1994 figure
Total Areas of plantations established (km^2) *5	317	356	206 1994 figure

*1 Includes plantations; excludes multi-stemmed growth form (mallee).

*2 Nature Conservation Reserve category. Additional reserves for conservation are set aside within multiple-use forests.

*3 From ABARE Forest Products Statistics for respective years.

*4 Difference in total plantation areas between two consecutive years (eg. 1986 & 1985).

*5 Sum of new plantation areas plus replantings.

Forest definitions:

FAO reported figure: This is the same definition as previously used for UN FAO questionnaires, and maintains reporting consistency. It enables change over time to be monitored. Changes in the area of forest from 1990 to 1995 are due to plantation establishment. Australia is adopting the National Forest Inventory (NFI) definition of forest, as it most accurately represents the true occurrence of tree dominated vegetation in this country. The previous concept of forest and woodland no longer provides a complete picture of forest cover in Australia.

NFI forest (dense, closed): woody vegetation, usually with a single stem, having a mature, or potentially mature, stand height exceeding 2 metres with existing or potential projective foliage cover of overstorey strata about equal to, or greater than, 30% (>50% crown cover).

NFI forest (sparse): woody vegetation, usually with a single stem, having a mature or potentially mature stand height exceeding 2 metres, with existing or potential projective foliage cover of overstorey strata about equal to or greater than 10% or less than 30% (20-50% crown cover

AGENDA 21 CHAPTER 12:MANAGING FRAGILE ECOSYSTEMS: COMBATING DESERTIFICATION AND DROUGHT

NATIONAL PRIORITY: Addressed by the National Drought Policy, the NSESD, and draft National Strategy for Rangeland Management

STATUS REPORT: Australia signed the Convention on 14 October 1994, which will come into force on 26 December 1996. The Federal Government of Australia has now begun the process of deciding whether to ratify the Convention. These procedures involve extensive consultation with, and consideration by, the Federal Parliament, State and Territory Governments and the wider community.

As part of theses new treaties procedures, the Federal Government is preparing a National Interest Analysis (NIA) of the Convention to Combat Desertification, drawing upon consultations with the States and Territories, business and industry representatives, and environmental and development organisations. This NIA will provide a summary of the potential benefits and costs to Australia of entering the Convention. The NIA will also take into account the recommendations of the Federal Parliament's Joint Standing Committee on Treaties and a Commonwealth-State Treaties Council on the Convention. The NIA will be tabled in Parliament and released to the public, prior to a final decision on ratification.

Additional comments relevant to this chapter: Australia's rangelands, comprising the arid and semi-arid areas and some high rainfall areas in the north of the country, make up nearly three quarters of the continent. They include native grasslands, shrublands, woodlands and the tropical savanna woodlands, some of which have suffered degradation although the exact extent and severity is not yet defined. Pastoral industries occupy 58% of the rangeland area, however the mining and tourism industries are now economically more significant than pastoralism and drive most of the infra-structure development in the rangelands.

Australian governments seek to ensure consistency between policies and programs aimed at natural resource management, industry development and drought. Many initiatives link ecological, social and economic objectives through development of integrated regional approaches to resource management.

A review of drought measures triggered under the National Drought Policy was initiated as a result of the intensification of Australia's drought situation in 1994-95. Objectives of the review were to assess the appropriateness of current drought assistance measures and to set the foundation for the development of a future drought policy with appropriate assistance initiatives. Future developments in drought policy will focus on the importance of drought research and development programs in maintaining a sustainable farming sector and minimising the impacts of drought on the environment.

Many rangeland areas contain habitat for rare, threatened and endangered species and have a significant number of endemic species or exhibit high species diversity. Biodiversity in these areas has been adversely affected by factors such as feral animals and weeds, modification of habitat by grazing, vegetation clearing and land degradation. The National Strategy for Ecologically Sustainable Development and Conservation of Australia's Biological Diversity, and the current development of national strategies for rangeland management, weed management and the conservation of Australian species and ecological communities threatened with extinction are helping to address these issues.

The Draft National Strategy for Rangeland Management was released for a five month public comment period in July 1996. The Draft Strategy sets out a vision for Australia's rangelands based on the need for ecological sustainability and commercial viability of industry in the region. It identifies actions needed to protect and enhance the natural resources base which underlies most activity in the rangelands. The Draft Strategy was prepared by a working group comprising representatives from key stakeholder groups, including government, industry, conservation, indigenous peoples and scientists. Significant input was provided by both rural and urban communities, industry and other interest groups. The finalised National Strategy for Rangeland Management is due for release in 1997.

Federal and State/Territory governments have been working to develop a National Weeds Strategy (NWS) in an attempt to better coordinate control efforts by the different spheres of government and landholders in addressing nationally significant weed species. The weeds *Acacia nilotica, Cryptostegra grandiflora, Prosopis spp, Parkinsonia aculeata and Xanthium occidentale* are serious pests in the rangelands and have been identified as possible nationally significant species for control in the draft action plan for the NWS.

Management of total grazing pressure (TGP) is of concern to rangeland pastoralists, however the management of feral pests is difficult over extensive areas. The 1996 release of the rabbit calicivirus disease (RCD) will reduce the grazing impact of this pest species with subsequent environmental benefits.

CROSS-SECTORAL ISSUES

1. Capacity-Building/Technology Issues:
The research and development program of the Commonwealth Scientific and Industrial Research Organisation (CSIRO) includes many projects with direct applicability to the rangelands. For example, CSIRO have developed a technique for measuring land condition at the landscape scale using satellite imagery. In cooperation with the Northern Territory government the method has been used to assess an area of some 40 000 square kilometres of central Australia. All rangeland States and Territory governments are also undertaking research into rangeland management issues. The establishment in 1995 of the Cooperative Research Centre for the Sustainable Development of Tropical Savannas is an example of the cooperation being undertaken between organisations working in the rangelands of Australia.

The Property Management Planning (PMP) initiative being implemented jointly by the Federal and State/Territory governments is providing a coordinated approach to raising the managerial skills of property and farm managers. Modules, emphasising adult learning principles rather than information dissemination, are presented in a whole systems context at workshop sessions. "DroughtPlan" is a cooperative project between graziers, extension officers and researchers aimed at developing risk management strategies to deal with drought. Substantial progress has been made into climate prediction techniques and in management technologies.

National funding is to be provided for a small network of Aboriginal land management facilitators. Duties will include: raising awareness and providing information on land and nature conservation issues; facilitating the formation of group activity appropriate to Aboriginal people; assisting groups to plan and implement enterprise development and landcare activities; and assisting in the development of linkages between community groups, government agencies, non-Aboriginal landholders and private enterprise.

2. Major Groups:
Indigenous peoples have a special relationship with the rangelands and are substantial stakeholders within the region, managing approximately 18.4 percent of the total land area. Land tenure is also an important consideration for the pastoral, mining and tourism industries which are increasingly addressing the impacts of their activities on the environment, while seeking to operate ecologically and financially sustainable enterprises in the rangelands. Indigenous peoples may have concepts of conservation and land use which differ from those of other rangeland users. Management of Uluru Kata Tjuta National Park, owned by the region's traditional Aboriginal custodians, and managed jointly with the Commonwealth Department of Environment, provides an example of how indigenous knowledge is being used in rangeland management.

A new Indigenous Land Corporation (ILC) came into existence on 1 June 1995. During the first two years of its first National Indigenous Land Strategy (1996-2001) the ILC will be formulating its long term role in land management.

3. Regional/International Cooperation:
Australia's experience in tackling land degradation may be useful in helping other countries address their resource management problems. This is most apparent in our development assistance program and also through participation in internationally relevant research projects. The Australian Government supports international co-operation on desertification. In March 1995 the Australian Agency for International Development (AusAID) established the Australian Fund for Combating Desertification in Africa, managed by UNDP, the UN Office for Combating Drought and Desertification (UNSO) and the UN Office of Project Services. The Australian Fund is a component of the UNDP Trust Fund for Combating Drought and Desertification. Australia has also contributed funds to the Interim Secretariat to support the participation of developing countries and non-governmental organisations in the Convention. The Australian aid program also supports activities in developing countries in related fields such as sustainable agriculture, water resource management and land use planning. Such projects are aimed at the causes of desertification and preventing its escalation.

The Australian Centre for International Agricultural Research (ACIAR) funds collaborative research projects on priority agricultural problems in developing countries. It contributes funds to international agricultural research centres responsible for agriculture in dryland areas, particularly the International Center for Agricultural Research in Dryland Areas and the International Crops Research Institute for the Semi-arid Tropics. It also supports bilateral projects between Australian research institutions and those of the Asia-Pacific and southern African regions. Several of these have been related to soil and water management and conservation, and the control of woody weeds in areas subject to desertification.

AGENDA 21 CHAPTER 13:MANAGING FRAGILE ECOSYSTEMS: SUSTAINABLE MOUNTAIN DEVELOPMENT

NATIONAL PRIORITY: Addressed through joint initiatives outlined below

STATUS REPORT:

Australia has a generally flat land surface with relatively low precipitation and run-off. The Great Dividing Range is a discontinuous chain of mountainous terrain that extends up the east coast and into Cape York. The higher altitude peaks often harbour a range of plant and animal species that are relictual and of Gondwanan origins and thus of high conservation significance. Australia's mountainous regions have their greatest extent in the south-east of the continent (a region known as the Australian Alps) and in parts of the island State of Tasmania. The Australian Alps cover an area of roughly 25,000 km^2, or about 0.3% of Australia.

The Alps and the mountainous areas of Tasmania have a long history of grazing. In recent years other industries and land uses, particularly hydroelectricity generation, forestry, skiing, fishing, bushwalking, trail riding and general tourism have come to dominate. Protection of important catchments is a high priority, as are the control of erosion, the protection of cultural heritage, and the conservation of unique alpine fauna and flora habitat.

The Australian Alps national parks encompass an area of approximately 1.5 million hectares of the Australian mainland and provide protection to approximately 62 % of the Australian Alps geographic unit. Much of the area outside national parks is also public land. It is managed under a multiple use strategy, covering uses such as skiing, cattle grazing and forestry activities. The 1996-99 Strategic Plan for the cooperative management of the Australian Alps national parks is in place. This is an extension of the 1993-96 Strategic Plan and reflects community consultation and agency review of priorities.

CROSS-SECTORAL ISSUES

1. Decision-Making Structure:

Management of mountainous areas is, in general terms, the responsibility of the relevant State or Territory or Local Governments. Many mountain sites are included in protected areas managed by State or Territory conservation agencies.

The Alps national parks are managed by three parks agencies: The Australian Capital Territory Parks and Conservation Service, the New South Wales National Parks and Wildlife Service, and the Victorian Department of Natural Resources and Environment. The Federal Government, through the Department of the Environment's Australian National Parks and Wildlife Service, supports the management agencies with coordination, secretariat and financial assistance. To facilitate a common approach to management for the alpine parks and reserves, the State and Federal Ministers responsible for the Australian Alps Co-operative Management Program maintain a Memorandum of Understanding (MOU), established in 1986, and revised in 1989 and again in 1996.

The objective of the agreement is to pursue cooperative management and develop complementary policies to protect the natural and cultural heritage of the Australian Alps, whilst providing opportunities for public enjoyment of that resource. The Australian Alps Liaison Committee was formed to coordinate the development and implementation of co-operative programs and arrangements.

2. Major Groups:

In developing cooperation, all projects related to mountain development aim to maximise the effective participation of local people in preserving their environment.

3. Finance:

A total annual budget of $400 000 is provided for the Australian Alps National Parks Co-operative Management Program through contributions from the States and the Commonwealth. This is in addition to the operational budgets of the individual parks and management agencies.

4. Regional/International Cooperation:

Through the implementation of the MOU, the Australian Alps national parks are developing an international reputation for their cooperative management. The IUCN publication "Parks on the Borderline: Experience in Transfrontier Conservation", give recognition to the success of cross-border cooperation between the different MOU agencies. The IUCN publication indicates that the Australian Alps parks and reserves constitute the most advanced operating cross-border park management agreement now in existence.

Australian expertise in dryland agricultural methods has been used to improve the sustainability of agricultural practices in a number of marginal mountain environments in Asia and the Pacific. Examples of such projects include the Highland Agricultural and Social Development project in northern Thailand, the Nepal Australia Community Forestry project, the Laos Upland Agriculture project, the Nusa Tenggara Timur Watershed Management project in Indonesia and two integrated area development projects in Simbu province in the Papua New Guinea Highlands. Together these projects total over $60 million. The Australian Centre for International Agricultural Research (ACIAR) has supported research projects on reducing degradation of upland areas of South Asia caused by soil erosion and acidification.

AGENDA 21 CHAPTER 14:PROMOTING SUSTAINABLE AGRICULTURE AND RURAL DEVELOPMENT

NATIONAL PRIORITY: Addressed by the National Strategy for Ecologically Sustainable Development

STATUS REPORT:

Over the past decade, Australian government policy has shifted away from price related assistance, towards market oriented policies. The government has progressively reduced protection measures and recast the role of statutory industry bodies who now concentrate on research and development activities, market information and promotion services largely funded by growers. Farmers have supported the new policy framework. They have improved their management and financial skills and adopted new technologies and innovative practices. They have become more flexible and better able to adapt to changing market conditions. Productivity has increased, management of the natural resource base has improved, and linkages with other sectors have been strengthened. A community-based approach has proven to be the most effective model to progress sustainable development.

A number of Federal Government initiatives have been undertaken, and are in train, to improve sustainable agriculture and rural development in farming sectors. Outlined in Chapter 10 are programs and the establishment of the $1.25 billion Natural Heritage Trust which will be the foundation for the conservation of biodiversity and the ecologically sustainable management of Australia's land and water resources. Some initiatives are discussed below.

The National Drought Policy (NDP) was agreed to by the Federal, State and Territory governments in 1992. The NDP aims to encourage primary producers and other sections of rural Australia to adopt self-reliant approaches to managing for climatic variability, maintain and protect Australia's agricultural and environmental resource base during periods of extreme climate stress and ensure early recovery of agricultural and rural industries, consistent with long term sustainable levels. To ensure a continued movement towards this goal, the National Drought Policy is currently under review.

The National Rural Finance Summit was held on 3-5 July 1996 to develop a greater appreciation of farm financial issues and identify strategies that will contribute to long term sustainability, profitability and international competitiveness of the farm sector. The Summit provided the basis for developing a coherent vision for Australian Agriculture with Government, industry, financial institutions and the community working in partnership to achieve a prosperous rural Australia. The Summit emphasised the need to ensure fair and equitable adjustment policies which will help agriculture through periods of adjustment and acknowledged that arrangements are also needed which assist those in desperate circumstances and who have no future in the industry to adjust out with dignity, and to support their families while in the process of leaving farming.

Australian farm productivity continues to increase through advances in technology and improved farm management. Central to these achievements is the ability of farmers to make appropriate structural adjustments in response to market developments. The Rural Adjustment Scheme is the main mechanism that the Government uses to overcome impediments to adjustment. The Mid-Term Review of the Rural Adjustment Scheme (RAS), will take a long term view of the adjustment challenges facing Australian agriculture and will assess the capacity of present adjustment arrangements to meet those challenges, as well as, examining the role, if any, for Government intervention. There will be a particular focus on the role of on-farm business risk management strategies.

The Federal Government is also pursuing the development of a comprehensive national Business Plan for Australian Agriculture which will set out the vision for agriculture over the next ten years and identify the roles and responsibilities of all players.

In 1995, a Land Management Taskforce reported on ways to improve the adoption of property management planning by the farm sector. The National Property Management Planning Campaign under the National Landcare Program aims to encourage better planning and management skills of individual farmers for all aspects of farm management, ensure that planning is carried out on a catchment or regional basis, take into account the needs of all users and the inter-relationships of land, water and vegetation consistent with the principles of the National Strategy for Ecologically Sustainable Development.

Apart from Government policies and programs that cover all agricultural sectors such as Landcare, the Government looks to promote sustainable growth within specific industries through agencies such as research and development corporations.

Within the dairy industry, for example, the government supports the Dairy Research and Development Corporation (DRDC). The DRDC's objectives are to increase industry effectiveness, improve the social and environmental sustainability of dairying, and to achieve efficient use of R&D resources.

Industry growth strategies have been developed for a number of industries including dairy, horticulture and sugar industries. These strategies aim to improve farming systems and strengthen the linkages with the manufacturing sector through downstream value adding and export orientation. Following a report from the Horticultural Task Force the Government established the Horticulture 2000 Group in February 1995 to implement a growth strategy for horticulture. In regard to sugar, the Federal and Queensland Governments have endorsed the recommendations of the Sugar Industry Review Working Party, established to review the Queensland sugar industry's regulatory arrangements and the need for a tariff on sugar. The recommendations, including removal of the tariff from 1 July 1997, provide an integrated package of reforms designed to promote a sustainable and internationally competitive industry.

In the food sector the Government's new Supermarket to Asia Strategy is bringing together government and industry leaders to work on further improving the competitiveness of Australia's fresh and processed food exports to Asia. The implementation of the Strategy will be overseen by the Prime Minister's Supermarket to Asia Council. The Council comprises the Prime Minister and four other senior Government Ministers, and leaders from the farming, food processing, packaging, transport, research, trade union and retailing sectors. Initially, the Council is concentrating on five key issues: quality and sustainability; business competitiveness and productivity; trade and market development; communication; and transport and logistics. The Supermarket to Asia work will complement the Business Plan for Australian Agriculture which the Government is developing, together with industry, as an outcome of the National Rural Finance Summit held in July 1996.

CROSS SECTORAL ISSUES

1. Decision making structure:
Within the federal system of government the State and Territory governments have prime constitutional responsibility for land management. Within the Australian government the Department of Primary Industries and Energy is primarily responsible for Agriculture. Local Government has a key 'hands on' role in planning and land management in rural areas. Many local governments provide support and coordination or work directly with Landcare groups.

2. Capacity-Building/Technology Issues:
The Australian Bureau of Agricultural and Resource Economics (ABARE) provides economic information of direct relevance to Australia's minerals, energy, agriculture, forestry and fishing industries through a comprehensive program of economic research and analysis. The government also funds the Australian Geological Survey Organisation (AGSO) and the Bureau of Resource Sciences (BRS).

The Australian primary industries R&D corporation (RDC) model features a high level of industry involvement and priority setting, funding and management of research. This approach ensures effective and efficient R&D that is market driven and focused on areas with the highest returns for industry. It also provides for joint industry and government funding while separating funding from the performance of research. Its core is the proactive management of all aspects of R&D by expert management boards including strategic planning and priority setting, funding and facilitation, and commercialisation and adoption of R&D outcomes. The development of sustainable rural industries is one of the key objectives in the legislation establishing the RDCs.

5. Regional/International Cooperation:
Australia participates in the Cairns Group of agricultural exporting nations, with APEC and WTO. Australia also pursues agricultural trade issues on a bilateral basis, an example being the Closer Economic Relations with New Zealand.

Australia's agricultural environments, including tropical and dryland environments, are similar to many developing countries. Despite the challenges which agriculture and rural development present, this is an area where Australia has comparative advantage, with a wide range of relevant agricultural expertise. Under Australia's bilateral aid programs, about $40 million is spent each year on agricultural production and services, agricultural storage and land survey and conservation. Another $10 million is spent on forestry activities and $5 million on fisheries. About $40 million is spent annually on international agricultural research under the aid program. There are two main ways in which these funds are used, through the Australian Centre for International Agricultural Research (ACIAR) and through the international agricultural research centres such as the International Rice Research Institute in the Philippines. ACIAR promotes collaborative research among Australian scientists and their developing country counterparts on key aspects of sustainable

agriculture including: better land, forest and water management; improved animal husbandry and health; improved management of coastal and marine ecosystems; more effective agronomic practices; minimisation of toxic chemical inputs; and socio-economic aspects of sustainable natural resource development and management.

Many of AusAID's activities in other sectors contribute to rural development and poverty alleviation. These include activities in health and education, water resources, transport and communication infrastructure, good governance and micro-enterprise. Support for programs that directly benefit women and girls are also vital for increased agricultural production. These related activities are estimated to involve expenditure of well over $100 million per year.

STATISTICAL DATA/INDICATORS			
		1985	**1990**
Agricultural land (Km^2)		4,729,600[a]	4,665,610[a]
Agricultural land as % of total land area		61.3	60.5
Agricultural land (m^2 per capita)			273,402.3
		1989/90	**1992/93**
Consumption of fertilizers per (kg/Km^2 of agricultural land as of 1990)		298.7	289.4
[a] Including about 270,000 km^2 of cultivated grassland.			

AGENDA 21 CHAPTER 15: CONSERVATION OF BIOLOGICAL DIVERSITY

NATIONAL PRIORITY: Addressed by the NSESD and the National Strategy for the Conservation of Australia's Biological Diversity

STATUS REPORT:

Convention on Biological Diversity

- Convention signed in 1992, ratified in 1993

Convention on International Trade in Endangered Species of Wild Fauna and Flora

- Convention signed before 1 July 1992.
- Latest Australian report submitted in 1995.

Additional comments relevant to this chapter

Protection of biodiversity and the maintenance of essential ecological processes and life support systems is one of the three core objectives of the National Strategy for Ecologically Sustainable Development (NSESD). The National Strategy for the Conservation of Australia's Biological Diversity is a product of the spirit of cooperation engendered by the InterGovernmental Agreement on the Environment and has been endorsed by all spheres of government. It is the major framework for national implementation of the Convention on Biological Diversity. The Strategy accepts the core objectives and guiding principles of the NSESD and outlines objectives and actions for six target areas. A key element of the Strategy is the management of biological diversity on a regional basis. Measures are intended to achieve the integration of biodiversity conservation into planning mechanisms at all levels.

The establishment of protected areas has long been a focus of government activity in the sphere of conservation. To achieve the Government's objective of having a national representative system of protected areas, the National Reserve System program has been established. The program includes development and refinement of methodologies for identification of protected areas, incentives for State and Territory cooperation and development of nationally consistent management principles for protected areas. The Government has a particular interest in the development of a mix of off-reserve incentives to promote the conservation and sustainable use of biodiversity. In addition, the Endangered Species Program, Wetlands Program and the National Landcare Program, and initiatives such as One Billion Trees and Save the Bush contribute to the off reserve management and rehabilitation of biological diversity.

Ex-situ measures include botanic gardens, seed/gene banks such as the network of plant genetic resource centres and the Australian Tree Seed Centre, aquaria, zoos, and microbial collections such as the CSIRO (Commonwealth Scientific and Industrial Research Organisation) Culture Collection of Microalgae. Networks such as the Australian Network for Plant Conservation and the Australian Species Management Scheme have been established to coordinate ex-situ conservation activities for threatened native plant and animal species, respectively.

The National Strategy for the Conservation of Australia's Biological Diversity is closely related to other national strategies: the National Forest Policy Statement, the draft National Strategy for Rangeland Management, the Feral Pests Program and a number of other national strategies currently being developed, including a National Weeds Strategy which is in the process of being finalised.

CROSS-SECTORAL ISSUES

1. Decision-Making Structure:

At the Federal level, Environment Australia has primary responsibility for formulation of national biodiversity policies on a whole of government basis. A key means for coordinating Federal, State and Territory policies and activities relevant to biodiversity is the Australian and New Zealand Environment and Conservation Council. This Council comprises all Government ministers responsible for the environment and conservation, although only Australian ministers input to issues that pertain solely to Australia. There is a wide range of legislative instruments at all spheres of government relevant to biodiversity conservation.

2. Capacity-Building/Technology Issues:

The National Biodiversity Strategy recognises that major research initiatives are required in the areas of compilation and assessment of existing knowledge, conservation biology, achieving ecologically sustainable use in a range of sectors, rapid

assessment and inventory, long-term monitoring and ethnobiology. A number of projects are underway to help fill these gaps, including pilot testing of rapid biodiversity assessment techniques.

The Australian Biological Resources Study promotes studies in the taxonomy and distribution of Australia's flora and fauna. A Multi Divisional Research Program was established aimed at providing management options to help make the National Biodiversity Strategy operational. There are, for instance, a number of newly established Cooperative Research Centres concerned with management of tropical rain forests and with sustainable forestry.

Linking of herbarium collections is achieved through the Integrated Botanical Information System (IBIS), the Australian National Botanic Gardens (ANBG) computer data base which also links the collections to an extensive photographic collection. In conjunction with the Environmental Resources Information Network, the ANBG undertakes to catalogue the biodiversity of Australian plants by maintaining as an integral part of IBIS the Census of Australian Plants and the Australian Plant Name Index and making this information available to researchers. The National Wilderness Inventory project has completed the continental mapping of wilderness quality and is now continuing a program of maintenance and update.

3. Major Groups:

Contributions of industry, business, the scientific community and NGOs were particularly important to the development of the National Biodiversity Strategy. A Biological Diversity Advisory Council comprising persons with relevant expertise from these groups has been established to advise government on biological diversity conservation issues.

Support for increased community involvement in biodiversity conservation activities and for the incorporation of biodiversity into educational programs is a major objective of the National Biodiversity Strategy. Media organisations, government agencies, educational institutions, scientific establishments and conservation groups have all been active in recent years in promoting the conservation of biological diversity. Increased community interest in the topic has resulted in greater coverage in media and educational programs.

The importance of the knowledge and participation of Aboriginal peoples and Torres Strait Islanders is increasingly being acknowledged with cooperative efforts between the communities and both government and non-government conservation organisations. Significant areas of land under Aboriginal ownership have been set aside as protected areas. Aboriginal involvement is achieved through representation on management bodies, participation in the ranger service and through the contracting of work.

4. Finance:
Australia provides annual funding to the Trust Fund for the Convention on Biological Diversity. Additional funding has been provided to assist delegations from developing countries to attend the COP, as well as contributing towards Biotechnology Fairs. In 1996 Australia provided initial funding for an indigenous persons position within the CBD Secretariat. A Natural Heritage Trust has been established to become the foundation for the conservation of biodiversity and the ecologically sustainable management of Australia's land and water resources.

5. Regional/International Cooperation: Australia participates in the South Pacific Biodiversity Conservation Program and other projects with global significance. The Rapid Assessment of Biodiversity Resources project, for instance, will lead to several products that will aid countries (and others) to rapidly appraise areas and determine priorities for the management of biodiversity.

STATISTICAL DATA/INDICATORS

	1992	Latest 1996	
Protected area as % of total land area	6.4	7.8	
Number of threatened species		1031	
Currently, protected areas cover about 7.8% of Australia's land area. There are 4,187 terrestrial and about 306 marine protected areas. Australia has 11 World Heritage Areas, 12 Biosphere Reserves and 42 Wetlands of International Importance under the Ramsar Convention. Of the 1031 threatened species 312 are endangered and 719 are vulnerable. 264 recovery plans are in preparation and 148 are already being implemented.			

AGENDA 21 CHAPTER 16:ENVIRONMENTALLY SOUND MANAGEMENT OF BIOTECHNOLOGY

NATIONAL PRIORITY: Addressed by the National Strategy for the Conservation of Australia's Biological Diversity.

STATUS REPORT:

The Australian Government funds numerous research and development programs designed to increase the quality and efficiency of production of food, fodder, and renewable raw materials. Biotechnology projects include work on improving yields, quality, and post-harvest life; diagnosing and combating plant and animal disease; reducing pesticide use; moving to more environmentally friendly herbicides; expanding plant capability to fix nitrogen, and improving food processing.

Most biotechnology projects for health and medical research are funded through the National Health and Medical Research Council (NH&MRC), the Cooperative Research Centre Program, or the Industry Research and Development Board and are focussed on molecular genetics, haematology, immunology, virology, parasitology, otology, microsurgery, diagnostics, and reproductive physiology. Biotechnology projects in agricultural industries are funded by rural industries research and development corporations as well as the Commonwealth Scientific and Industrial Research Organisation and State agricultural research institutes.

The Genetic Manipulation Advisory Committee (GMAC) was established in 1987 to oversee the development and use of novel genetic manipulation techniques in Australia. GMAC assesses whether such work poses potential hazards to the community and the environment and, if so, recommends appropriate safety procedures and containment of organisms to researchers, commercial institutions and government regulatory bodies. Separate GMAC subcommittees consider proposals for contained work and for planned introduction of genetically modified organisms into the environment. Examples of planned releases of crop plants include subterranean clover with a sunflower albumin gene, virus resistant potato, lupins with herbicide resistance, and potato with decreased browning. GMAC also drafts and promulgates guidelines which specify procedures and containment levels. An integral part of the GMAC system is a network of Institutional Biosafety Committees (IBCs) in research institutes and companies throughout Australia. The IBCs monitor day-to-day genetic engineering work and ensure that GMAC's guidelines and specific advice are observed. GMAC participates in the development of biosafety concepts and principles undertaken internationally by the OECD.

Other bodies with an interest in biosafety include the Therapeutic Goods Administration, the National Registration Authority for Agricultural and Veterinary Chemicals, the Australian Quarantine and Inspection Service (AQIS), the National Occupational Health and Safety Commission, Environment Australia and the Australia New Zealand Food Authority.

The Australian system of plant variety protection ensures breeders' intellectual property rights to new plant varieties. Australia's patent system is fully consistent with the Trade-Related Aspects of Intellectual Property Rights (TRIPS) agreement.

Significant public information activities are undertaken by four major organisations. A Gene Technology Information Unit has been established to increase public awareness and understanding of gene technology. It develops and supplies high quality, objective and timely information on gene technology, both for schools and the general public and for "expert" communicators trained by the Unit. The CSIRO also runs workshops introducing biotechnology techniques to the public. The Australian Biotechnology Association publishes information pamphlets on various biotechnology topics. An important GMAC function is the publication of Public Information Sheets on planned release proposals, as well as general information presented through the internet (Http://www.dist.gov.au/science/gmac/gmachome.htm), quarterly newsletter and annual reports.

CROSS-SECTORAL ISSUES

1. Decision-Making Structure:
The overall responsibility for regulatory policy governing gene technology rests with the Department of Industry, Science and Tourism. However, the responsibility for biotechnology policy is widely dispersed among Federal and State Government portfolios, particularly those responsible for health, agriculture and the environment.

The voluntary guidelines for notification and assessment of genetic manipulation work have been very up to date but they have no legal force. Further options, including the possibility of new legislation for ensuring compliance with research guidelines are being considered. Consideration is also being given to extension of the role of existing bodies in regulating the general release of genetically modified organisms.

2. Capacity-Building/Technology Issues:

Research in biotechnology is undertaken at many universities, research institutes and Cooperative Research Centres throughout Australia. Many research projects are ongoing in the field of waste management, wastewater and sewage treatment and in the bioremediation of contaminated sites.

The Australian National Genomic Information Service (ANGIS), established in 1991, assists research and development in molecular biology, genetic engineering and biotechnology through providing a databank of sequence data from nucleic acids and proteins. The Australian Proteome Analysis Facility is currently being set up to enhance research into the protein readout of the genome.

3. Major Groups:

Regulatory bodies include public consultation phases within assessment procedures. Institutional Biosafety Committees include an independent member. NGOs have promoted on a number of biotechnology issues, including:

- the need for a biosafety protocol under the Convention on Biological Diversity,
- the need to avoid restrictions on trade in biotechnology products, which are inconsistent with the non-discriminatory and other principles of the multilateral trading system,
- the limitations, as well as the potential, of biotechnology to address agronomic, health or environmental problems in an integrated, safe and sustainable manner,
- ethical issues surrounding the patenting of life forms,
- the application of the precautionary principle to genetic engineering,
- indigenous peoples' rights in relation to genetic resources, and
- labelling of consumer products derived form genetically manipulated organisms.

4. Regional/International Cooperation:

Australia cooperates with FAO, WHO, CGIAR, the International Council for the Control of Iodine Deficiency Disorders and the International Centre for Diarrhoeal Disease in biotechnology issues, e.g. through the Australian Centre for International Agriculture Research (ACIAR). Among the health initiatives by Australians in underdeveloped countries are important programs to combat blindness and chronic urinary infection in Africa.

CSL Limited has been designated as a key WHO Collaborating Centre for Influenza, and now operates as an international reference centre. A novel drug to combat influenza is being developed commercially by Biota Holdings Limited; this very promising drug has almost completed clinical trials and could receive regulatory approval in 1997.

A number of biotechnology related activities have been supported through ACIAR. These include: development of a vaccine to control screw worm, development of transformation and regeneration systems for peanut and papaya to provide disease resistance in Indonesia and Thailand, and training scientists from 14 countries in molecular biology techniques.

AGENDA 21 CHAPTER 17:PROTECTION OF THE OCEANS, ALL KINDS OF SEAS, INCLUDING ENCLOSED AND SEMI-ENCLOSED SEAS, AND COASTAL AREAS AND THE PROTECTION, RATIONAL USE AND DEVELOPMENT OF THEIR LIVING RESOURCES

NATIONAL PRIORITY: Addressed in the NSESD

STATUS REPORT:

The UN Convention on the Law of the Sea
Signed in 1982 Ratified in 1994

See also the attached tables on the next pages

The Commonwealth Coastal Policy, developed in 1995, identifies Guiding Principles for the Sustainable Management of Coastal Resources and provides for a programme of cooperative action, the Commonwealth Coastal Action Program. This is now being implemented in cooperation with State and Local Governments, and includes Coastcare (a community participation program), capacity building initiatives, industry codes of practice, information access, and strategic planning and monitoring. Coastal area management is being integrated into regional planning with coastal area management plans being developed at the regional level.

In 1991, the Australian Government established Ocean Rescue 2000, a ten year program to protect the marine environment. The program is working to provide an overall framework for the conservation and sustainable use of Australia's marine environment, including the recently declared EEZ. An Integrated Marine and Coastal Regionalisation for Australia is being developed and the establishment of a national representative system of marine protected areas in all States/ Territories and Commonwealth waters is being prepared.

Australia is in the early stages of the development of an oceans policy for Australian waters to provide an overarching strategic framework to enhance the planning, management and ecologically sustainable development of *inter alia* our fisheries, petroleum, gas and seabed resources, whilst ensuring the conservation and protection of our marine environment.

The Federal Government is providing $1.25 billion for a comprehensive and integrated environment and natural resources package delivered through a Natural Heritage Trust. Legislation to allow the implementation of this package is currently before Parliament. This package includes funding for a Coasts and Clean Seas Initiative, which will involve the provision of $100 million over four years to previously neglected areas such as ocean outfalls, stormwater pollution and marine research.
The Federal Government also aims to have a comprehensive Australian oceans policy in place by early 1998. The policy will address issues such as improved fisheries management and the development of a representative system of marine protected areas. Funding for the Coasts and Clean Seas Initiative will be used to support the oceans policy.

The National Water Quality Strategy addresses threats to the marine environment from land-based activities. The Waterwatch Australia Program, a community participation and education program, promotes total catchment planning and management which contributes to addressing land-based pollution. ANZECC has developed Guidelines and Criteria for Determining the Need for and Level of Environmental Impact Assessment in Australia which includes references to 'environmentally sensitive marine localities' and marine parks.

Commercial fishing activity is regulated through fishery management plans. The management plans adopted by State, Territory and Federal Governments all embrace the concept of ecologically sustainable development. In 1995, a national policy was developed to address recreational fishing. With the broadening of fisheries management to accommodate wider environmental and habitat considerations, multiple use or zoning of marine industries is increasingly becoming a part of fisheries management in Australia. Special arrangements have been made to address fishing by-catches. In 1994, a National Strategy on Aquaculture was developed. Fishery adjustment schemes have been implemented to adjust fleet capacity to bring about the long term sustainability of fisheries resources. In 1996, all State and Territory governments and the Federal Government committed themselves to the implementation of the National Strategy for the Conservation of Australia's Biological Diversity. Part of this strategy looks at ways to achieve the conservation of biodiversity through the adoption of ecological sustainable fisheries management practices.

A number of threatened marine species are listed under the *Endangered Species Protection Act 1992* , providing recognition of their status and mechanisms for their protection. In addition, "incidental catch (bycatch) of seabirds during oceanic longline fishing operations" was added in 1995 to the schedule of key threatening processes recognised under the *Endangered Species Protection Act*. A Threat Abatement Plan is currently in preparation to address this key threatening process. Other nominations have been made under this Act and these are being evaluated.

In 1995, a strategy to manage discharges of ballast water from shipping was launched. It is aimed at minimising the risk of introduction of unwanted aquatic organisms into Australian waters, and is believed to be the world's first strategy in this field. A Council was established in 1996 to implement this strategy.

A National Plan to Combat Pollution of the Sea by Oil is in place and was reviewed in 1993. In 1996 ANZECC released a national maritime accidents and pollution strategy ('Working together to reduce impacts from shipping operations: ANZECC strategy to protect the marine environment.') to reduce pollution from shipping. The administration of the Sea Dumping Act is being reviewed. In 1995, a report into ship safety was published, entitled 'Ships of Shame - A Sequel - Inquiry into Ship Safety'. The report recommended tougher inspection procedures for vessels and the enforcement of international labour laws to combat the widespread exploitation of seafarers.

CROSS-SECTORAL ISSUES

1. Decision- Making Structure:
State and Territory and Local Governments have primary responsibility for managing most coastal land and inshore waters up to three nautical miles, except for some issues such as sea dumping. The Federal Government is primarily responsible for management of the EEZ and Territorial Seas. Most States and Territories have legislation, policies or guidelines specific to coastal management. Coastal management systems have been reviewed and several States are developing new legislation or planning policies.

The Federal Government is currently developing with State and Territory Goverments new jurisdicational measures under the Offshore Constitutional Settlement arrangements for fisheries. The new arrangements will better facilitate the implementation of sustainable resource management as they are based on natural stock boundaries and fishing methods rather than on political boundaries which fish stocks overlap.

2. Capacity-Building/Technology Issues:
The State of the Marine Environment Report, released in early 1995, comprehensively describes and assesses the current state of knowledge of Australia's marine environment and resources and the impact of human activities. The Bureau of Meteorology initiated in 1993 a Tropical Cyclone Coastal Impacts Project. National studies on port waste reception facilities and marine debris have provided important baselines against which to measure future improvements.

The Commonwealth Coastal Action Program includes capacity building initiatives covering professional development and training such as a short course program to meet the training needs of coastal managers, supports development of industry codes of practice (with the initial focus on aquaculture, recreational fishing, planning and the tourism industry), and is increasing public access to coastal information through the electronic "Coast Net" and the Coastal Atlas. As part of its Climate Change and Coastal Action Programs, the Federal Government supported a nation wide series of case studies an a national workshop to trial a revised methodology for vulnerability assessment of coastal areas to climate change.

3. Major Groups:
The Guiding Principles for the Sustainable Management of Coastal Resources include participation of local communities and indigenous people in decision-making, and the Coastcare Program was established to ensure community participation and develop projects to protect coastal areas. Many community groups, ranging from local ratepayer associations, to conservation groups and sporting clubs, play an active role in managing the coastal zone through activities such as Clean-Up Australia Day, Seaweek and projects to rehabilitate local beaches or wetlands.

The Ocean Rescue 2000 program established the Marine and Coastal Community Network to encourage and facilitate community support for the conservation and ecologically sustainable use of Australia's marine and coastal environments. The Maritime Accidents and Pollution program includes participation by shipping, plastics and packing industries as well as community groups.

The Waterwatch Australia Program is Australia's largest environmental education and participation program, with an estimated 30,000 people regularly involved in water way monitoring. The program promotes total catchment planning and management which contributes to addressing land-based marine pollution. Of the 1,200 community groups involved, between 200-300 are monitoring tidal waters and are undertaking actions at the local level to improve water quality.

4. Finance:

The Federal Government has provided funding of AUS$53 million over 4 years for the implementation of the Commonwealth Coastal Policy.

5. Regional/International Cooperation:

Australia ratified UNCLOS in 1994, and is an active participant in regional and global fisheries initiatives under UNCLOS. Australia participates in two of the Regional Seas Programs of UNEP, the East Asian Seas (EAS) Action Plan, and South Pacific Regional Environment Program (SPREP), and is committed to contributing to the promotion of sustainable development among small island developing states (SIDS) in the South Pacific region. Australia also participates in the Asia Pacific Economic Cooperation (APEC) Marine Resources Conservation Working Group, and has actively contributed to the development and regional implementation of the Global Programme of Action for the Protection of the Marine Environment from Land Based Activities (GPA). Australia is a founding member of the International Coral Reef Initiative (ICRI) which was established in 1994, and has taken on the ICRI Secretariat for 1996/1998. Australia is an active participant in the International Maritime Organisation (IMO) and is playing an important role in the development of the ballast water annex to MARPOL. Australia signed the Convention for the Conservation of Southern Bluefin Tuna that entered into force in 1994.

The Australian Government has developed a memorandum of understanding (MOU) with New Zealand to facilitate cooperation and assistance in the event of a marine pollution incident affecting the Tasman Sea. Australia has or is developing bilateral agreements relevant to oceans issues with Indonesia, Japan, Singapore, Vietnam, Korea, Papua New Guinea, Japan, China and Brunei.

STATISTICAL DATA/INDICATORS

	1980	1990	Latest 1995	
Catches of marine species (metric tons)		237 250	218 273	
Population in coastal areas		14.3 m		
Population served by waste water treatment (% of country's total population)	97	98	99	

AGENDA 21 CHAPTER 18:PROTECTION OF THE QUALITY AND SUPPLY OF FRESHWATER RESOURCES: APPLICATION OF INTEGRATED APPROACHES TO THE DEVELOPMENT, MANAGEMENT AND USE OF WATER RESOURCES

NATIONAL PRIORITY: Addressed by the NSESD

STATUS REPORT:

The aim of Australia's integrated approaches to water resource development and management is the more efficient and sustainable use of those resources. Australia's integrated approaches take into account the linkages between all natural resources (soil, water and vegetation), involve all stakeholders - governments, community and industry, and recognise the importance of effort at a number of levels, namely at the national, State and local/catchment levels. Australia's approaches also seek to address the economic and social needs of communities in tandem with natural resource aspects. The examples of progress provided below explain the features of Australia's integrated approaches in more detail.

A national strategic framework for water reform, which was agreed by all governments through the Council of Australian Governments in February 1994, establishes a structured program of reform measures to achieve more efficient and sustainable water resource use. State and Territory Governments have prime responsibility for water resource management and implementation of the reforms. The Federal Government has a complementary role in the reform process in providing leadership and facilitating implementation, in the interest of promoting national outcomes.

The reforms, to be implemented over the period to 2001, cover both rural and urban areas and include measures in relation to water pricing, water entitlements and trading, environmental requirements, institutional reform, public consultation and education, and research. Good progress has been made in implementing the reforms in the short time since they were agreed.

Water property rights systems are being addressed by governments under a framework or set of national principles. Similarly, environmental requirements are being addressed through a set of national principles on water for ecosystems. All governments have in place, or are planning, measures to promote integrated catchment management approaches. Governments have undertaken activities to promote water trading and initiated action to progress interstate water trading. Urban authorities have also maintained the pace of reform in relation to institutional reforms and pricing arrangements. Issues relating to groundwater management are also being examined through a national framework, as is management of stormwater and wastewater resources.

Whilst there will be overall benefits to the Australian community and the nation as a whole through more efficient and sustainable resource use, there are also specific benefits for irrigated agriculture which accounts for the bulk (about 70%) of water used in Australia. Better defined property rights for water will assist the development of water markets and water trading, providing irrigators with greater business flexibility. The reforms will also mean more local involvement in managing irrigation areas. Other measures in the reform package address the sustainability of the resource base. Appropriate pricing policies will also help ensure that the long term future infrastructure needs of the irrigation sector can be met.

Water quality is being addressed through the National Water Quality Management Strategy (NWQMS). The NWQMS aims to achieve a nationally consistent approach to water quality management, while allowing flexibility to respond to differing regional and local circumstances, and embraces issues across the whole of the water cycle. It involves the co-operative development by governments of national guidelines and other documents which focus on part of the water cycle or a particular activity with potential to impact on water quality. A key element of the process is community consultation. The Strategy is nearing completion and will include guidelines for fresh and marine waters, drinking water, groundwater protection, sewerage systems (trade wastes) as well as effluent management guidelines for specific industries (including dairies, piggeries, wool scouring, tanneries and wineries and distilleries). Other documents which will form part of the Strategy are a community resource document on rural land use and water quality, guidelines for urban stormwater, as well as a set of guidelines to assist in implementation.

Other key water programs include the National River Health Program (NRHP) and the National Wetlands Program. The NRHP is addressing research into the environmental flow requirements of Australia's rivers, including the development of decision support systems. The Program is also developing the first national biological monitoring system for Australia's rivers, for the assessment of river health and related management action and State of the Environment reporting. The

National Wetlands Program aims to promote the conservation of Australia's wetlands through a variety of actions such as management planning for wetlands listed under the Ramsar Convention, management-oriented research, surveys, training programs and awareness raising. The program has assisted State and Territory Government with management planning for 32 of Australia's 49 Ramsar listed wetlands. In March 1996 Australia hosted the 6th Conference of Contracting parties to the Ramsar Convention, representing the first time the Conference of the Parties had been held in the southern hemisphere.

The Murray-Darling Basin is a major region in Australia facing significant resource degradation issues which are being addressed through integrated approaches. It occupies one-seventh of the nation's land mass and is one of the most important agricultural production areas in Australia. A significant achievement in 1995 was the completion by the Murray-Darling Basin (MDB) Commission (which involves the Federal and four State governments) of a comprehensive audit of current and future water use in the Basin, which indicated the dramatic impact on the environment that diversions have had on the river systems. In response to the results of the audit, the MDB Ministerial Council introduced an interim cap on diversions and agreed that a better balance needed to be struck between consumptive and environmental uses of water in the Basin. An immediate moratorium was therefore placed on further diversions whilst the details of a permanent cap and arrangements for its implementation are being worked out.

In addition to the audit and cap process, which will provide the broad macro settings, a Sustainability Plan for the Basin will address land and water management issues at a more detailed level. This plan is also complemented by a set of integrated plans, policies and programs. The Natural Resources Management Strategy supports community groups taking responsibility for coordinating natural resource management action within their regions. Other initiatives include strategies to address salinity and drainage issues, algal management and management of the Basin's wetlands, an irrigation management strategy and a program to address dryland salinity in the Basin.

CROSS SECTORAL ISSUES

1. Decision-making Structure: The structures relating to natural resource management, described in the Chapter 10 report, also apply to water resources.

2. Capacity Building/Technology Issues: A range of institutions and organisations undertaking research into natural resource management are described in Chapter 10.
Australia's community based policies and programs are aimed at developing a capacity for improved resource management at the local level. By encouraging community participation in monitoring water quality, the Waterwatch Australia Program aims to raise community awareness of the natural environment, instil the wise use of natural resources ethic in communities, and encourage on-ground community based activities and networking. Around 32 000 Australians in 1150 groups across 86 catchments are participating in this program.

3. Major Groups:
Australia's integrated approaches seek to involve major groups through its community based programs and public consultation processes. Irrigation farmers are a key group accounting for about 70% of the water used. Farmers have demonstrated their willingness to adopt more sustainable practices. Many are now using water saving practices (eg moisture monitoring technology, irrigation scheduling, water recycling).

4. Finance:
Considerable support is provided by a range of Federal and State/Territory programs aimed at improving water resource management. As outlined in the Chapter 10 report, the Federal Government is committed to funding a $1.25 billion package of natural resource management measures. The main elements which address water management are a National Land and Water Audit ($32m), the Murray-Darling 2001 project ($150m) and a National Rivercare Program ($85m).

5. Regional/International Co-operation:
Water supply is an important element of Australia's official development assistance (ODA) because of its contribution to poverty reduction. Australia's aid expenditure on water supply and sanitation activities has increased dramatically over the last 5 years from $10.2 million in 1990-1 to $76.1 million in 1995-6. Most projects are located in the Asia-Pacific region. AusAID activities in this sector have increasingly incorporated environmental concerns (such as improved catchment management) as well as the involvement of local communities in their design, construction and maintenance.

6. Statistical Data/Indicators

Developed Resource (as % of available water)	20% (approx.)

STATISTICAL DATA/INDICATORS		
	Latest 1996	
Fresh Water Availability (surface and groundwater) Gigalitres/year	106760	
Developed Resource (as % of available water)	20 % (approx)	

AGENDA 21 CHAPTER 19:ENVIRONMENTALLY SOUND MANAGEMENT OF TOXIC CHEMICALS, INCLUDING PREVENTION OF ILLEGAL INTERNATIONAL TRAFFIC IN TOXIC AND DANGEROUS PRODUCTS

NATIONAL PRIORITY: Addressed through the National Strategy for ESD

STATUS REPORT:

The Australian government is strongly committed to the sound management of chemicals and participates in domestic and international activities to implement actions addressing the six program areas of chapter 19 of *Agenda 21*.

Australia has implemented an extensive legislative and structural framework for the sound management of chemicals at both the federal, State and local levels. Programs are in place for the assessment of industrial, agricultural and veterinary chemicals under federal statutory assessment schemes, including the National Industrial Chemicals Notification and Assessment Scheme (NICNAS) and the National Registration Scheme for agricultural and veterinary chemicals (NRS). Federal government agencies monitor chemicals for bioaccumulation, persistence and unacceptable toxicity and work through NICNAS, NRS, and in conjunction with the Organisation for Economic Cooperation and Development/International Program for Chemical Safety (OECD/IPCS) chemicals programs to set priorities for assessment of chemicals of domestic and international concern. Australia has also established an Existing Chemicals Review Program to review older agricultural and veterinary chemicals against contemporary standards.

Therapeutic chemicals and food additives are also managed through federal legislation which provides a cooperative, national focus for the regulation of chemicals in food and, where appropriate, the establishment of Maximum Residue Limits.

Australia actively participates in programs aimed at the international exchange of assessment information, including assessments prepared for industrial, agricultural and veterinary chemicals. Progress in this area includes: recent modifications in the structure of some of Australia's assessment reports; negotiations on confidentiality and proprietary rights issues with industry; the development of reports with other countries that provide internationally acceptable content, structure, and decision making information; and provision of information on Australia's schedule of reviews and details of those reports available for exchange.

Australia advocates the harmonisation of classification systems and labelling wherever appropriate and has achieved uniform labelling for agricultural, veterinary and domestic chemicals and drugs. Mechanisms for harmonisation of chemicals management are being considered.

The Federal government supports public availability of information on risks presented by industrial, agricultural and veterinary chemicals and participates fully in the voluntary prior informed consent (PIC) procedure. Public information is to be an integral part of programs being developed, such as the strategy to manage scheduled wastes and the National Pollutant Inventory. The Inventory is to be premised on the need for guaranteed access by the public to emissions information.

Australia has developed a National Poisons Register and participates in the development of the IPCS INTOX project which aims to promote the development of poison information centres in each country and to develop harmonised data services to assist poisons centres worldwide in the prevention, diagnosis and treatment of poisoning. Australian State and Territory governments have established comprehensive programs aimed at educating workers on chemical safety issues. The chemical industry has also undertaken a voluntary program to improve the health, environmental and safety performance of its operations.

CROSS-SECTORAL ISSUES

1. Decision-Making Structure:

National committees and federal government inter-departmental committees, comprising departments with chemical - related responsibilities, have been created to enhance cooperative consideration of international and domestic chemicals policy issues. The National Registration Authority has the primary decision-making powers in relation to registration or non-registration of agricultural and veterinary chemicals for sale in Australia. Worksafe Australia is responsible for the administration of notification and assessment of industrial chemicals. In the assessment processes of industrial chemicals and agricultural and veterinary chemicals, advice on public health and environmental implications is provided by health, occupational and environmental agencies.

2.Capacity-Building/Technology Issues:

Australia has developed a preliminary national profile on chemicals management infrastructure and is considering the development of a comprehensive profile to provide an integrated tool for risk reduction and management.

A large program of research and development is conducted by various national and State organisations in cooperation with national research organisations such as CSIRO and universities. Research activities include field evaluation of new products; efficacy trials to determine cost effective treatment and applications rates; alternative pesticides; integrated pest management technology; identification and evaluation of biological control agents and development and evaluation of pest and disease resistance in host plants and animals.

The Australian government has conducted a major campaign to inform the public about concerns over lead, in particular, providing information and a financial incentive to encourage a switch from leaded petrol. The federal government also undertook and has published the results of a national survey of blood lead levels, particularly of young children.

3. Major Groups:

Australia seeks to promote increased collaboration between the Federal, State and Territory Governments, industry, academia and NGOs interested in various aspects of chemicals management. Consultations are held on a regular basis to enable input by industry and other non-government organisations in the development of government policy.

4. Regional/International Cooperation:

Australia actively participates in activities to strengthen international and regional cooperation on the safe management of hazardous chemicals.

The Australian government is an active member of the Intergovernmental Forum on Chemical Safety (IFCS) and hosted the second Intersessional Group Meeting of the IFCS as part of its support for Forum activities on Chapter 19 of *Agenda 21*. Australia is a lead country for a number of international risk assessment and risk management activities. Exchange programs for assessment reports on therapeutic chemicals also exist between Australia and Canada, Sweden and New Zealand.

Through its membership of the OECD, Australia participates in international activities aimed at harmonising chemicals management methods (including OECD Test Guidelines and Chemicals and Pesticides Programs) and is involved in the OECD High Production Volume Chemicals Program and the OECD Complementary Information Exchange Procedure, the OECD EXICHEM database (and other relevant international schemes) providing information on regulatory developments. Australia has taken the lead on the exchange of assessment reports on new industrial chemicals through the OECD Chemicals Program and, since 1992, has participated in the OECD pilot pesticides project to compare toxicity data reviews for human health and environmental hazard assessment and the subsequent OECD *Ad Hoc* Exchange Program for Pesticide Assessments.

Australia has participated actively in discussions arising from UNEP initiatives to develop a legally binding instrument for prior informed consent (PIC) procedure and to develop recommendations on international action on certain persistent organic pollutants (POPs). Australia also participates in the UN London Guidelines, the FAO Code of Conduct on the Distribution and Use of Pesticides, the IRPTC and the ILO information exchange scheme.

AUSTRALIA

The Australian Government has co-hosted a regional workshop on Pollution Release Transfer Register's (PRTRs) for Asian Pacific countries in June 1996. The workshop provided an open forum for discussion on the benefits and users of PRTRs. Australia has also participated in the IPCS Environmental Health Criteria program, including being a co-sponsor for the IPCS workshop and taskgroups on copper in June and zinc in September 1996.

Australia is also providing assistance to countries in the Asia and the South Pacific regions through the United Nations Institute for Training and Research and the South Pacific Regional Environment Program to develop national profiles on chemicals management infrastructure.

Australian development cooperation includes risk reduction programs in developing countries, particularly through reducing the need for chemical pesticides and fertilisers. This includes promotion of integrated pest and weed management systems and the improvement of crop species and research into chemical alternatives to pest control

AGENDA 21 CHAPTER 20:ENVIRONMENTALLY SOUND MANAGEMENT OF HAZARDOUS WASTES, INCLUDING PREVENTION OF ILLEGAL INTERNATIONAL TRAFFIC IN HAZARDOUS WASTES

NATIONAL PRIORITY: Addressed by the NSESD

STATUS REPORT:

The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal

- The Basel Convention was signed by Australia in 1989 and ratified in February 1992.

Additional comments relevant to this chapter

The Federal Government has amended its implementing legislation, the *Hazardous Waste (Regulation of Exports and Imports) Act* 1989 to enable Australia to fully implement its obligations under the Basel Convention. The amendments will come into force on 12 December 1996.

The OECD Council Decision is generally regarded as an Article 11 arrangement under the *Basel Convention on the Control of Transboundary Movements of Hazardous Waste and their Disposal* (the Basel Convention). Both the Basel Convention and the Council Decision set up notification and consent procedures to track the transboundary movement of hazardous waste. The Council Decision's procedures are simplified for movements between OECD countries of waste destined for recovery. The amended legislation will give effect to this decision under regulations to the Act.

It is an offence under the amended Act to move hazardous waste internationally without the relevant permit. The maximum penalty applies to offences that are likely to result in injury or damage to human health or the environment and is $1 million for a body corporate or up to 5 years imprisonment for an individual. Lesser penalties apply to other offences. In addition, executive officers of corporations may be held liable if they are found to have been negligent

The Federal Government has a pollution avoidance approach to waste issues and is developing programs to promote this approach in preference to end-of-pipe solutions for disposing of waste. This cleaner production approach is seen as both reducing industry costs and protecting the environment. In encouraging a cleaner production approach, Australia has been constrained by the difficulty in reaching numerous small to medium sized businesses. Pollution avoidance programs are being pursued at Federal, State and local levels. These aim to foster cleaner production, to promote the redesign of products from an environmental, life cycle perspective, and to demonstrate to industry the environmental and economic advantages of minimising the production of waste and pollution. The Federal Government has conducted a series of cleaner production workshops.

Federal funding is assisting several companies to redesign individual products from an environmental as well as functional perspective. The Australian Chamber of Manufactures, under a grant from the Federal Government, is producing environmental management handbooks providing a self assessment procedure for small industry and there are other industry sector specific manuals being produced under Federal funding. A cleaner production demonstration program is documenting economic and environmental gains including greenhouse gas reductions in several sectors. The results will be promoted widely throughout Australian industry. A Best Practice Environmental Management Program aims to encourage small and medium sized enterprises to use raw materials more efficiently, reduce solid and liquid waste discharges and increase recycling. This focuses upon assisting firms to reduce their running costs, increase production efficiency and to reduce the environmental impact of their activities.

A strategy was developed in 1992 to manage three classes of scheduled wastes, being polychlorinated biphenyls (PCBs), hexachlorobenzene and organochlorine pesticides (OPCs). The PCB management plan has been finalised with the hexachlorobenzene plan near completion and the OCP management plan in a developmental stage. The development of the management plans has been built around an extensive public involvement program and has considered relevant socio-economic aspects.

CROSS-SECTORAL ISSUES

1. Decision-Making Structure:

The Australian Federal Hazardous Waste (Regulation of Exports and Imports) Act, 1989, has been effective from 17 July

1990. This Act was developed to implement the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal. Australia's implementing legislation is the *Hazardous Waste (Regulation of Exports and Imports) Act 1989* as amended."

2. Capacity-Building/Technology Issues:
A system of National Hazardous Waste Management Guidelines has been developed. It involves a mechanism for prior notification, classification of hazardous wastes and transport documents and enables governments to collect information on the production of hazardous wastes. This information is incorporated in the Australian Waste Database. The Australian Government considers that being able to understand the waste stream is central to achieving waste reduction objectives. An important part of Environment Australia's role is to develop an accessible centralised collection of information on waste, which is critical for making informed decisions. To facilitate this, Environment Australia is:

- developing the Australian Waste Database (AWD) to be used to set, and report on the achievement of national waste minimisation targets;
- developing a database to facilitate community and industry access to recycled materials and recyclers;
- undertaking a benchmarking study to improve knowledge of waste generation levels back to 1990; and
- coordinating the development of a national protocol for the collection and reporting of waste generation and landfill quantity data that will provide uniformity of waste management data.

A National Pollutant Inventory is being established to collect information on emissions and transfers of wastes and pollutants.

3. Major Groups:
Policy on hazardous waste and related issues has been developed in a highly consultative manner with input for environment and community groups, industry, unions, development cooperation groups and technical experts

4. Regional/International Cooperation:
While Australia signed the Regional Convention on Hazardous and Radioactive Waste (the Waigani Convention) on 16 September 1996, it is yet to become a party through the process of ratification. In accordance with Australian treaty-making practice, ratification can only be considered once the Convention has been given effect through domestic legislation.

Australia has assisted in facilitating workshops to discuss the establishment of Regional Centres in Beijing and Jakarta for the treatment of hazardous wastes in the Asian-Pacific Region. Australia held workshops in China and Thailand on cleaner production and environmental management systems in June 1996

AGENDA 21 CHAPTER 21:ENVIRONMENTALLY SOUND MANAGEMENT OF SOLID WASTES AND SEWAGE-RELATED ISSUES

NATIONAL PRIORITY: Addressed by the NSESD

STATUS REPORT:

The National Waste Minimisation and Recycling Strategy (1992) includes recycling targets and national packaging guidelines, sets the target of a 50% reduction in rubbish to landfill by 2000 and has national recycling targets to be achieved by 1995. The Strategy complements comprehensive waste minimisation and recycling programs being implemented throughout Australia at all spheres of government. The Strategy incorporates the waste management hierarchy (in order of preference) of waste avoidance, waste reduction, waste recycling or reclamation, waste treatment and waste disposal.

Other waste and water quality management issues are being pursued through, for example, the National Water Quality Management Strategy, involving the following principles:

- adoption of a life cycle approach to waste minimisation;
- the application of the precautionary principle to waste management;
- adoption of a user pays approach;
- application of the polluter pays principle;
- incorporation of full social and environmental costs into waste management options; and
- cleaner production techniques, as opposed to end-of-pipe waste treatment.

The material specific targets set out in the *National Kerbside Recycling Strategy* and the *National Packaging Guideline* expired in 1995. ANZECC convened a Task Force on Industry Waste Reduction Agreements to develop new voluntary agreements in areas that include green and organic waste, construction and demolition waste and with the packaging industry. The new agreements incorporate waste reduction at source and recycling targets.

The use of economic instruments to deal with solid waste and water issues is currently being widely investigated and/or implemented by the various spheres of government within Australia. Trade waste charges have been proposed and are being implemented by several State governments. Local authorities are reviewing charging systems for water.

CROSS-SECTORAL ISSUES

1. Decision-Making Structure:
In Australia, waste management is the responsibility of three spheres of government, Federal, State/Territory and local government. Each level of government is responsible for specific roles in regard to the management of waste. The Federal Government is responsible for leading and coordinating the development of the policy and regulatory framework for waste management and for international conventions and agreements on waste.

State and Territory government are responsible for the development of waste management strategies, legislation, standards and regulations for their jurisdictions. Local governments are responsible for the day to day management of waste collection and disposal. Coordination of national waste management issues is also addressed through the Australian and New Zealand Environment and Conservation Council (ANZECC). Local governments also develop waste management strategies and plans to manage the large variety of waste materials in their local areas. They are responsible for the day to day management of waste collection, recycling and disposal.

2. Capacity-Building/Technology Issues:
A National Waste Database and a National Solid Waste Classification System are presently being built up. Australia is initiating programs to develop and strengthen national capabilities in research and design of environmentally sound technologies, as well as programs designed to reduce industrial waste processes through cleaner production technologies and 'good housekeeping' practices. The EcoRedesign project aims to redesign a number of household products from an environmental and total life cycle perspective. The Federal Government is also running a project demonstrating to industry the environmental and economic benefits of implementing cleaner processes.
The Cooperative Research Centre for Waste Management and Pollution Control (at Sydney, Melbourne, Newcastle and Perth) focuses on waste reduction and minimisation, sewerage and water quality, site remediation, instrumentation and monitoring, disposal of wastes from intensive rural industries, on-site treatment of liquid wastes, disposal of wastes as solids, odours and atmospheric emissions and social ecology. Research underway includes waste audit protocols and their

application.

3. Major Groups:
NGOs participate in the development of a National Waste Database and a National Solid Waste Classification System.

4. Regional/International Cooperation:
Australia funds a number of projects with sanitation components through the development cooperation program including: UNICEF Water/Sanitation project in Malawi, Waste Management Technology in India, East Timor Water Supply and Sanitation project, Visayas Water and Sanitation in the Philippines, Tarawa Sanitation in Kiribati, South Pacific Sanitation project and the Wei Hai Sewerage Treatment Plant in China. These projects include elements of technology transfer, institutional strengthening and training.

AGENDA 21 CHAPTER 22:SAFE AND ENVIRONMENTALLY SOUND MANAGEMENT OF RADIOACTIVE WASTES

NATIONAL PRIORITY: Addressed through the National Strategy for ESD

STATUS REPORT:

Safe storage, transportation and disposal of radioactive wastes is promoted in Australia through national codes of practice promulgated in State and Territory regulations. The Codes have been developed on a federal consultative basis and follow international standards and guidelines developed by the IAEA. The national Code of Practice on the Management of Radioactive Wastes from the Mining and Milling of Radioactive Ores (1982) is to be revised to take account of changes in international philosophies in this area.

In early 1996 a shipment of spent fuel from the High Flux Australian Research reactor (HIFAR) was made to the UK Atomic Energy Authority's (AEA) Dounreay plant for reprocessing. The purpose of this shipment was to reduce spent fuel holdings at Lucas Heights, Sydney, consistent with Australia's non-proliferation objectives and to convert spent fuel to a waste form amenable to long term management in Australia. The enriched uranium will also be recovered for re-use in fresh research reactor fuel, further contributing to resource and energy conservation.

The Government is yet to make a final decision on the disposition of the remaining HIFAR spent fuel. Meanwhile, HIFAR spent fuel is stored in accordance with international safeguards obligations.

Radioactive waste from reprocessing of HIFAR spent fuel will eventually be returned to Australia as a stable intermediate level waste form. Management options for this waste will be considered in the context of arrangements by the Federal and State Governments for management of Australia's other intermediate level radioactive wastes.

In 1994 the Federal Government commenced a project to rehabilitate the former British nuclear test sites at Maralinga (South Australia). The Maralinga test sites include areas seriously contaminated with plutonium. Earth works required to bury surface contamination in engineered trenches commenced in June 1996 and will be completed in 1998. A further phase of the project involves stabilisation of plutonium contaminated burial pits using in-situ vitrification technology.

In 1995 a Senate Select Committee was established to inquire into and report on radioactive waste management issues in Australia. A Commonwealth study to identify a suitable site for a national near-surface repository for Australia's low level and short-lived intermediate level wastes recognised under IAEA guidelines as suitable for near-surface disposal, was suspended to take account of the Committee's findings. The Government is currently considering the Committee's report.

CROSS-SECTORAL ISSUES

1. Decision-Making Structure:

The Environment Protection (Sea Dumping) Amendment Act (1986) prohibits the dumping into the sea and the incineration at sea of radioactive material. The Commonwealth/State Consultative Committee on Management of Radioactive Waste provides an opportunity for Governments to review a range of radioactive waste management issues

2. Capacity-Building/Technology Issues:

Australia is involved in research and development of methods for the safe and environmentally sound treatment, processing and disposal of radioactive waste. Australia is a major participant in the Alligator Rivers Analogue Project, an aim of which is to develop and test models for radionuclide migration relevant to the assessment of the safety of radioactive waste repositories.

Australia has developed the SYNROC waste management technique for disposal of high level waste. Australia is continuing to pursue the commercial application of SYNROC technology overseas. The technique requires commercialisation overseas because Australia does not have a nuclear power industry.

The Australian Government is continuing to fund a program for monitoring the effectiveness of a rehabilitation project at the former Rum Jungle uranium site in the Northern Territory. The Rum Jungle mine site represents a unique case study in mine rehabilitation and there is continuing international interest in the monitoring and maintenance at the site. The research has implications for management of wastes arising from the mining and milling of radioactive ores in Australia

and overseas.

3. Finance:
Australia set aside $A1.29 million in the 1996/97 budget for contribution to the Technical Assistance Cooperation Fund (TACF) of the IAEA for the 1997 calendar year.

4. Regional /International Cooperation:
Australia is participating in negotiations to draw up an international Convention on the Safety of Radioactive Waste Management. The purpose of the proposed Convention is to encourage the safe and environmentally sound management of radioactive wastes world wide. Australia supports giving the IAEA Code of Practice on the Transboundary Movements of Radioactive Waste legally binding status under the proposed Convention. Australia is party to the London Convention (1992) and has ratified the South Pacific Nuclear Free Zone Treaty.

Australia signed the "Convention to Ban the Importation into Forum Island Countries of Hazardous and Radioactive Wastes and to Control the Transboundary Movement and Management of Hazardous Wastes within the South Pacific Region" (the Waigani Convention) in September 1995. Australia supports the Waigani Convention as an important initiative which seeks to prohibit the importation of hazardous and radioactive wastes into the Pacific Island Developing Countries; and to regulate and facilitate the environmentally sound management of wastes generated in the Convention Area.

Australia actively supports effort within the IAEA to introduce international radioactive waste safety standards, guidelines and codes of practice. Australia supports research and development into radioactive waste management by participating in activities undertaken by such organisations as the NEA and IAEA and in international forums on radioactive waste management.

AGENDA 21 CHAPTER 23-32: MAJOR GROUPS

STATUS REPORT ON PARTICIPATION BY MAJOR GROUPS AT THE NATIONAL AND LOCAL LEVELS

Ch. 24: GLOBAL ACTION FOR WOMEN TOWARDS SUSTAINABLE AND EQUITABLE DEVELOPMENT.
The Convention on the Elimination of All Forms of Discrimination Against Women was signed on 17 July 1980, ratified on 28 July 1983

Australia's National Strategy for Ecologically Sustainable Development (NSESD) requires the development of ESD related policies, programs and actions which incorporate the particular concerns of women, while ensuring that actions to achieve ESD do not have inequitable effects on women. Decision makers are explicitly requested to assess, and make efforts to minimise where inequitable or disadvantageous, the gender impacts of ESD related decisions. Australia continues to address the issue of increasing the influence of women in environmental decision-making in a number of ways. These include supporting the involvement of women and their organisations in environment policy processes particularly in relation to ecologically sustainable development. Women have a major role in the long-term sustainability of agriculture through their work on farms, support of community initiatives such as Landcare and participation on rural industry boards.

Australia supports international programs addressing women and environmental issues through the Australian Agency for International Development (AusAID). AusAID provides funding to a number of UN agencies which work closely with women, including the UN Fund for Population Activities, the UN Environment Program and the UN Development Fund for Women. AusAID also assists women in developing countries through its funding of individual bilateral projects and through NGOs. Also at the international level, Australia's participation in the United Nations Fourth World Conference on Women, held in Beijing in September 1995, reflected a commitment to fully integrating the principles of ecological sustainability into all aspects of regional, national and global development and to ensure that women participate on an equal basis in this process.

Ch. 25: CHILDREN AND YOUTH IN SUSTAINABLE DEVELOPMENT.
Government consults with young people through the Australian Youth Policy Action Coalition (AYPAC), the national non-government youth peak organisation. In January 1997, the Federal Government announced the Green Corps program which provides young people with full-time training, for up to twelve months, on community based environmental projects. Projects include land care, eco-tourism and restoration activities, and survey and data collection work. Training associated with projects is linked, where possible, with career opportunities in fields such as environmental management, science, conservation and restoration.

Australia ratified the United Nations Convention on the Rights of the Child in December 1990 and ratified the World Declaration on the Survival, Protection and Development of Children in May 1991. Australia has encouraged multilateral agencies to promote the goals of the World Plan of Action for Children in their programs. The aid program is concerned to encourage a reduction in child exploitation through its contribution to the economic and social development of developing countries. As part of Australia's National Program of Action for Children, the development cooperation program will place greater emphasis on priority areas for children such as immunisation, enhancing the status of women, refugee assistance and basic education. Internationally, Australia's commitment to education and training issues is reflected through bilateral and regional programs with developing countries; participation in multilateral fora such as APEC and the OECD; support for the United Nations' specialised agencies including WHO and UNICEF; support and contributions to the World Bank and Asian Development Bank; provision of consultancy services to regional projects funded by international finance institutions; and the establishment of the Australian International Education Foundation.

Ch. 26: RECOGNIZING AND STRENGTHENING THE ROLE OF INDIGENOUS PEOPLE AND THEIR COMMUNITIES.
Aboriginal and Torres Strait Islander people comprise approximately 1.6% of the total Australian population and currently own approximately 15% of the land. However, there are a number of characteristics of Aboriginal and Torres Strait Islander land which have implications for environmental and land management. Although much Aboriginal land is largely agriculturally non-productive it contains localised areas which are rich in resources and which are the focus for many competing land uses. Aboriginal land use is a mixture of traditional and introduced, small scale and extensive, high impact and benign land uses that interact and overlap with each other. Aboriginal land managers are faced with the complexity of these often interrelated and overlapping land uses and their sustainability.

STATUS REPORT ON PARTICIPATION BY MAJOR GROUPS AT THE NATIONAL AND LOCAL LEVELS

Australian Aboriginal and Torres Strait Islander peoples are among the most disadvantaged groups within the Australian community. The Federal Government has fully recognised the importance of strengthening the role of indigenous peoples through the enactment, in 1989, of the *Aboriginal and Torres Strait Islander Commission Act*. That Act established a statutory body whose corporate objectives and functions specifically seek to empower Aboriginal and Torres Strait Islander peoples in the development of policies and operations of government programs.

The Aboriginal and Torres Strait Islander Commission (ATSIC) is a decentralised organisation, combining representative, policy-making and administrative elements. It was designed to put into effect the principle of self-determination for indigenous Australians. Aboriginal Land councils represent indigenous people in relation to land matters in a number of geographic regions. They also participate in a number of related environmental and social issues. Aboriginal groups have for some time been jointly managing a number of national parks, including the major parks of Uluru-Kata Tjuta, Kakadu, Gurig and Nitmiluk in the Northern Territory. The management of these areas increasingly seeks to incorporate traditional practices and knowledge and recognises the value of indigenous cultures to Australia's heritage.

The most significant event influencing Australian domestic policy on indigenous peoples, and the environment, is the High Court *Mabo* decision of June 1992 on native title. The *Native Title Act 1993*, which is the Federal Government's response to the *Mabo* judgement, seeks to strike a balance between the recognition and protection of the rights of native title holders and the land development needs of all Australians.

Ch. 27: STRENGTHENING THE ROLE OF NON-GOVERNMENTAL ORGANIZATIONS: PARTNERS FOR SUSTAINABLE DEVELOPMENT.

The Australian Government is committed to consulting widely with the community on domestic and international environment matters. For the purpose of ensuring that the views and interests of the community are taken into consideration, the Government has created a range of channels for consultation. A peak body reviews the international agenda, focussing on Australia's objectives in meetings of the Commission on Sustainable Development and other international environment meetings. This fora is chaired at Ministerial level. There are on-going consultations between Government and relevant NGOs on topical international negotiation and issues relating to the implementation of Agenda 21. The Australian Government encourages participation by NGOs on Australian delegations to international environment convention meetings, at their own expense. Two NGO advisers join Australian delegations to a number of the major environmental meetings, one from an environment/development organisation and one from business

At a domestic level, the Intergovernmental Committee on Ecologically Sustainable Development conducts annual consultative meetings with NGOs on matters relating to the implementation of the National Strategy for Ecologically Sustainable Development. Meetings of a group of peak conservation organisations with the Environment Portfolio Minister are held on a regular basis and an informal dialogue is maintained at officer level with both industry and environment NGOs. More detailed consultations take place on a range of specific environmental issues covered by chapters in Agenda 21. Forests, coastal areas, and ocean and freshwater resources, are all areas of particular importance for Australia and consultations on them with NGOs are extensive.

Environment Australia administers a program of grants to voluntary conservation organisations (the GVCO program). The program aims to help environmental organisations, both nationally and internationally, the protection and enhancement of ecological processes and natural resources as essential components of the well-being of current and future generations. Assistance is given to organisations which raise community awareness and understanding of environmental issues and ecologically sustainable development principles. Funding is provided under the program to maintain or enhance the operational capacity of eligible organisations to pursue their programs.

NGOs contribute in a unique way to grass roots development and the building of personal contacts between Australians and people in the developing world. The central mechanism through which the Australian Government provides funding to NGOs is the allocation of development project subsidies from the AusAID-NGO Cooperation Program. AusAID administers this program in consultation with the NGO community through the Committee for Development Cooperation.

Ch. 28: LOCAL AUTHORITIES' INITIATIVES IN SUPPORT OF AGENDA 21.

There are approximately 750 Councils in Australia which vary in size, population, geography and budget. Local

STATUS REPORT ON PARTICIPATION BY MAJOR GROUPS AT THE N.. 'IONAL AND LOCAL LEVELS

Government responsibilities also vary depending on the State jurisdiction, but include land use planning and management, and infrastructure and service provision. Local Government activities can significantly influence the management and protection of the environment, for example, urban planning, environmental health, water supply, pollution control, sewerage treatment, waste management and disposal, and natural resource management. For this reason, many Councils are involved in developing conservation and management strategies to improve their environments within their municipality and region.

Most Councils in each State and Territory are represented by their respective Local Government Association. These associations are represented nationally by the Australian Local Government Association (ALGA). ALGA's core business is intergovernmental relations, and involves representation on the Council of Australian Governments and intergovernmental committees including the Intergovernmental Committee on Ecologically Sustainable Development.

Environs Australia (formerly the Municipal Conservation Association) has taken a lead in translating Agenda 21 into practical measures to assist its implementation by Local Government. Funded by the Federal Government, 'Local Agenda 21, Managing for the Future' provides a guide to successfully implement Local Agenda 21. Many Councils are developing Local Agenda 21s, or are involved in processes which are consistent with its principles.

Ch. 29: STRENGTHENING THE ROLE OF WORKERS AND THEIR TRADE UNIONS.

Australian trade unions play an important role in reducing the economic and human costs associated with poor occupational health and safety (OHS) and environmental performance through their activities in specific workplaces. More broadly, trade unions play a role in developing and implementing economic, social and environmental policies and programs. Development of the National Strategy for ESD brought together trade unions, industry, conservation and community groups in an effort to address their mutual interests and concerns for ESD.

The Australian Council of Trade Unions (ACTU) has participated in a range of consultative processes with respect to both domestic and international issues. The ACTU participated in the Australian Government's NGO Forum on International Environmental Issues and the National Greenhouse Advisory Panel. In addition, the ACTU participated in Australian delegations to the Commission for Sustainable Development and to the First Conference of the Parties to the Framework Convention on Climate Change (FCCC).

30: STRENGTHENING THE ROLE OF BUSINESS AND INDUSTRY.

The Australian Government recognises the central role played by business and industry in the economy and in efforts to move towards a more ecologically sustainable pattern of development. The Government has therefore involved industry closely in the development of strategies and initiatives aimed at promoting ecologically sustainable development. Business and industry representatives are also included on delegations attending international meetings on environmental issues.

There is a wide range of initiatives occurring within government and industry to encourage more sustainable practices. Industry has shown it can provide leadership in demonstrating best practice approaches, such as Alcoa's rehabilitation program at a Western Australian mine site, which was recognised by the United Nations Environment Program for its excellence and is now part of the Global 500. The Government has also provided assistance to industry to promote the adoption of environmentally sound practices..

Environment Australia aims to facilitate environment protection in Australia and the region by bringing Australian technological and managerial solutions to environmental problems. A key focus is to facilitate the growth of Australia's environment management industry based on both domestic and export markets. A strong and growing environment industry serves to promote environment protection and has an underpinning role in supporting ecologically sustainable development. Environment Australia works collaboratively with the environment management industry and has a good working relationship with the peak industry body, the Environment Management Industry Association of Australia (EMIAA). There are a number of other programs aimed at facilitating the growth of the Australian environment industry.

Ch. 31: SCIENTIFIC AND TECHNOLOGICAL COMMUNITY.

Australian Governments recognise the important role scientists, technicians and engineers will play in addressing economic, social and environmental problems and is considering, and acting on, many of the issues raised in this chapter.

STATUS REPORT ON PARTICIPATION BY MAJOR GROUPS AT THE NATIONAL AND LOCAL LEVELS

Australia has a long tradition of independent research and a well-organised and often vocal scientific and technological community, and these contribute to the essential public debate about science and its importance to the economy and the environment. Establishing and strengthening links between the scientific and technological community and the broader community, in government, in education, in industry and elsewhere is an important part of more effective decision-making processes concerning environment and development. Whilst government can facilitate and encourage these links, ultimately they are the responsibility of individual scientists, technicians, engineers and the institutions in which they work.

Scientific expertise is integrated into policy-making at all spheres of government. At an operational level, most agencies have working relationships with scientists and engineers and their expertise is instrumental to effective policy making in line areas of policy like health, environment, industry, communications, defence, education and so on. The Primary Industries and Energy portfolio has a specialised agency, the Bureau of Resource Sciences, which is responsible for managing the interface between science and policy and interpreting scientific knowledge for the benefit of decision makers. This promotes better linkage between scientific and technical knowledge and strategic policy and program formation. New information technologies are being used in decision support systems that can integrate large quantities of data from a variety of sources, including remote sensing, so that this information can be utilised in a meaningful way.

Distinguished scientists and engineers provide advice on environmental issues to all spheres of government through the Australian Science & Technology Council and the Prime Minister's Science and Engineering Council. Parliamentary committees regularly examine science-related issues of national importance, holding public hearings across the country. More specialised bodies such as the National Greenhouse Advisory Committee provide expert scientific advice on specific issues of importance to the Australian Government. Scientific and technical inputs are sought in the development of negotiations towards international agreements, and consultative processes enable the public to comment on these inputs (e.g. development of an Australian position on the Biosafety Protocol).

The Government is also concerned that scientific practice is undertaken safely and humanely, and has developed stringent guidelines for work in hazardous areas like nuclear science, toxic chemicals and genetic manipulation. Voluntary guidelines include the code of practice for the care and use of animals for scientific purposes, guidelines for small scale genetic manipulation work, guidelines for large scale work with recombinant DNA, and procedures for assessment of the planned release of recombinant DNA organisms. The Federal Government intends to introduce legislation covering research, contained use and field trials of genetically manipulated organisms. The Research and Development Corporations are research funding and investment agencies, financed by government and industry, which also determine their priorities. Many contribute by disseminating information to industry and the public on sustainable land use and agricultural practices, again improving the interface between science and decision making, as well as the implementation of scientific results.

Ch. 32: STRENGTHENING THE ROLE OF FARMERS.

Approximately one third of Australia's population live in rural and remote areas and a significant proportion of these people are farmers and their families. Social and economic opportunities for these communities are vital to the sustainable development of the nation's economy and future. A community-based approach, directly involving farmers and rural community groups, supported by government, has proved to be the most effective model to progress sustainable development in regional and rural areas. This is consistent with the market-based approach to agricultural development and the achievement of self-reliance of farmers. The Government plays an important role in policy and program formulation and acts as a catalyst for development while relying on broad-based consultation with the relevant communities. The Government also consults a wide range of farmer and community groups on both a formal and informal basis through peak industry and welfare associations. The Government recognises that rural communities do not have the same capacity as urban areas to raise public revenue, yet rural industries are major export earners in the Australian economy. State Governments have a major role to ensure adequate infrastructure, education and health facilities, telecommunications and law enforcement.

There is an increased emphasis on broad-based community consultation in Government policies and programs for rural communities. The success of this approach has been demonstrated under the National Landcare Program outlined in Chapter 10. The Government also consults a wide range of community groups on both a formal and informal basis. These groups include the National Farmers' Federation, a wide range of rural industry associations, the Country Women's Association, The Australian Council of Social Service, the Isolated Children's Parents' Association, the National Rural Health Alliance, the Australian Mining Industry Council, Australian Women in Agriculture, the Foundation for Australian Agricultural Women, the Rural Adjustment Scheme Advisory Council.

AGENDA 21 CHAPTER 33:FINANCIAL RESOURCES AND MECHANISMS

STATUS REPORT:

Financial resources and mechanisms are also covered under each sectoral chapter. This summary highlights broader external funding policies. In the 1996-97 fiscal year, Australia will provide $1.45 billion in official overseas development assistance (ODA). This is expected to equate to an ODA/GDP ratio of 0.3 per cent. The 1996-97 aid budget strengthens the focus of Australia's aid program with respect to its fundamental purpose, to assist developing countries reduce poverty and improve the standard of living of their people through sustainable development and to assist in achieving a more secure and equitable international order.

The environmental aspects of sustainable development are addressed in the bilateral aid program on two levels:

- by ensuring that environmental impact is considered in the design implementation of all activities undertaken by the Australian Agency for International Development (AusAID); and
- by building a portfolio of projects with specific environmental objectives.

The aid program administered by AusAID, is subjected to an independent environmental audit of its activities. Since 1991 the audit has been conducted annually. Following the release of the 1994 audit in November 1995, AusAID will move to a combination of three yearly audits of environment-related processes and systems, with evaluations of environment-related projects in intervening years. This will expand the range of AusAID's environmental reviews and reporting and allow more specific feedback into the design of future aid projects. AusAID has also produced Country Environment Profiles on Papua New Guinea, Indonesia, Laos and China.

The aid program supports a range of international environment organisations and programs that help address environmental concerns at cross-border, regional and global levels. This includes support for the Montreal Protocol Fund ($10.18m, 1994/96); the Global Environment Facility ($72.76m, 1991-97), UNEP ($5.25m, 1991-96), and the South Pacific Environment Program ($1.2m annually). Funding is also provided to the Multilateral Development Banks ($204.7m, 1996-97) and United Nations development organisations ($74.7m, 1996-97) which have an environment focus in many of their program activities.

Considerable support is also provided for a range of environment-focused activities through bilateral program channels. In a number of country programs, for instance in Indonesia and the Philippines, environment issues are being specifically addressed through activities aimed at improving issues such as watershed management and land management practices. In Africa, support is being provided to a number of countries to assist them in their efforts to combat desertification

STATISTICAL DATA/INDICATORS

	1992/93	1993/94	1994/95	1995/96	1996/97	
ODA funding provided (Total A$million)		1,400	1,486	1,563	1,450	

AGENDA 21 CHAPTER 34:TRANSFER OF ENVIRONMENTALLY SOUND TECHNOLOGY, COOPERATION AND CAPACITY-BUILDING

STATUS REPORT ON LINKS BETWEEN NATIONAL, REGIONAL AND INTERNATIONAL INFORMATION NETWORKS/SYSTEMS:

The National Environment Industries Database aims to deliver, throughout Australia and its trading partners, information on technologies and skills currently available in Australia to solve environmental problems. The network is wide-ranging, including information on technologies, environmental education and training, legal services, research and development, government capability and consulting services. The network will be promoted to, and linked in where possible, with other international databases.

Research organisations such as the Commonwealth Scientific and Industrial Research Organisation (CSIRO), Australian Institute of Marine Science (AIMS) and Australian Nuclear Science and Technology Organisation (ANSTO) also promote collaboration between Australia and developing countries. For example:

- CSIRO has formal agreements with counterparts in Asia Pacific countries aimed at specific technical or environmental concerns. These include projects on coastal zone management, marine ecosystems and ocean current measurement.
- ANSTO has conducted training courses under the Regional Cooperative Agreement of the International Atomic Energy Commission in the application of nuclear science-based techniques to environmental issues, the application of radio analytical and radio tracer techniques to understanding pollutant and sediment transport and environmental processes in the coastal zone, as well as to the use of biological indicators of water quality, ecotoxicology and age dating of sediments and marine organisms.

The Australian Government is also promoting the development and transfer of environment technologies and services through the Environmental Cooperation with Asia Program. This program seeks to strengthen commercially based environmental relations in the region by enhancing awareness in Asia of Australian environmental management expertise. The program is expected to enhance Australia's share in the growing Asian market in environmental technologies, as well as contribute to stronger environmental management in partner countries through measures aimed at the development of markets for Australian environmental goods and services.

The transfer of environment technologies often occurs within the private sector. Environment Australia cooperates closely with Austemex, the export arm of the Environment Management Industry Association of Australia, in developing strategies to enhance the awareness of and the business of Australian environment management companies in the Asian region. Recognising the role of industry and business in ESD, the Australian aid program also provides a wide spectrum of support for the development of a vibrant private sector in developing countries. The Australian program's mix of policies, such as training programs and infrastructure improvement, and newer initiatives, including support for micro-enterprise development and assistance to adjust to the post-Uruguay Round trading environment, provide a strong basis for encouraging private sector growth.

AGENDA 21 CHAPTER 35: SCIENCE FOR SUSTAINABLE DEVELOPMENT

STATUS REPORT ON NATIONAL SCIENTIFIC KNOWLEDGE, RESEARCH NEEDS AND PRIORITIES:

Australia has an advanced science base and in many fields Australia's scientists are at the leading edge of research. Specific strengths relevant to sustainable development include remote sensing; climate change research; numerical modelling; dryland farming, irrigation research and salinity control; fisheries science, near shore and coral reef marine biology and ecology, limnology and water management, geology and mining technology; and the biology and ecology of the Australian biota.

The most important research agencies, apart from universities, are the Commonwealth Scientific & Industrial Research Organisation (CSIRO), the Defence Science & Technology Organisation, the Australian Nuclear Science & Technology Organisation, the Australian Institute of Marine Science, the Australian Geological Survey Organisation, the Bureau of Meteorology and the Bureau of Resource Sciences. Considerable effort is going into coordinating and publishing existing work and identifying gaps in the information base.

The development of links between indigenous knowledge and modern science is a relatively new field in Australia and is an increasingly urgent task as traditional knowledge and culture are lost with the passing of traditional lifestyles. Some work has been done by scientists in central Australia working with the Mutitjulu community, revealing an understanding of the relationships between landforms, plants, creatures and people, very different from prevailing scientific paradigms. They concluded that the detailed understanding of habitat preferences and the behaviour of rare, threatened and exotic species could be well utilised in future monitoring of wildlife conservation.

STEPS TAKEN TO ENHANCE SCIENTIFIC UNDERSTANDING, IMPROVE LONG TERM SCIENTIFIC ASSESSMENT, BUILDING OF CAPACITY AND CAPABILITY:

CSIRO devotes over 10% of its budget specifically to environmental research and has in place a number of large multidisciplinary programs addressing climate change, the coastal zone, integrated pest management, land and water care and mine site rehabilitation. The Australian Research Council is the primary funding agency for universities and funds research projects which range across all aspects of environment and development. The National Health & Medical Research Council funds health-related research.

Environmental indicators are a relatively new field, and research is progressing in some areas. The Land & Water Resources R&D Corporation and the Grains and Meat R&D Corporation are respectively developing indicators of sustainable production systems. Individual agencies are also developing specialist electronic databases. To encourage research and further development of Australia's environmental industries, environmental technologies have been declared 'generic' by the Government under the generic technologies grants scheme for industrial research. Industry also benefits from a general 125% tax deduction for expenditure on R&D.

There is an increasing recognition of the links between ecology and health. The National Health & Medical Research Council is formulating principles for ecology and health and considering ways to include health into environmental impact assessment procedures. The Genetic Manipulation Authority has been established to oversee the management of the environmental and health risks of the new biotechnologies.

AGENDA 21 CHAPTER 36:PROMOTING EDUCATION, PUBLIC AWARENESS AND TRAINING

STATUS REPORT: As part of the NSESD, ministers agreed to the incorporation of ESD principles as a cross curriculum perspective in the national curriculum framework.

a) Reorientation of education towards sustainable development

With the release of a curriculum statement in 1994, the incorporation of ESD became a key element for curricula development. The World Wide Web site at the Environmental Resources Information Network (ERIN), lists information and education materials and resources and provides links with other relevant stakeholders. Environment Australia has helped incorporate ESD principles in schools through the One Billion Trees schools education program and by producing educational resource materials.

b) Increasing public awareness

Awareness raising activities include national advertising campaigns; the production of various specialist and general publications including booklets, brochures, leaflets and posters; the production of educational audio-visual materials; the conduct of seminars and workshops; the promotion of static displays, mass media campaigns and special events (e.g. on coastal management, biodiversity).

Environment Australia mounted a major public awareness campaign involving mass media advertising and point of sale distribution of information designed to demonstrate that many pre-1986 cars could use unleaded petrol. It was highly successful and more than 500 000 drivers switched to unleaded petrol over a six month period

A range of environmental education programs are developed, e.g. EnviroQuest, an interactive computer game for schools to increase awareness and interest in environmental issues by school children; Australian Ways, a resource kit for teachers of English as a second language focused on ESD; a capacity building program for coastal managers; the Environment Protection Agency's Cleaner Production workshop series; and the Australian Heritage Commission's primary school teaching resource, Special Places.

c) Promoting training

The National Resources Information Centre (NRIC) has a Web site enabling access to a broad range of information relating to sustainable development issues. NRIC, through its purpose-built training facility, the Advanced Systems Institute, offers 'best practice' focused training in the use of information systems as enabling technologies for sustainable development. Courses have been held for scientists and managers in both the public and private sectors and from both developed and developing countries. A telecentres program has been established to link rural communities to the resources of the Internet and to train rural people in the use of information technology to enhance the sustainability of their communities.

AGENDA 21 CHAPTER 37:NATIONAL MECHANISMS AND INTERNATIONAL COOPERATION FOR CAPACITY-BUILDING IN DEVELOPING COUNTRIES

STATUS REPORT:

Australia's development cooperation program supports capacity building in developing countries through a range of mechanisms, particularly in the areas of human resource development and technology transfer. For many developing countries amongst the most pressing problems are the lack of skilled personnel and technical and institutional capacity. Australia therefore considers that the transfer of environmentally sound technology accompanied by capacity building measures is crucial in assisting developing countries adopt and implement sustainable policies.

Sustainable resource use continues to be a critical concern of Australia's development cooperation program the South Pacific. Considerable assistance is being provided on a country and regional basis to help countries in the region sustainably manage forestry and fisheries resources. Australia is supporting the national Environment Management Strategies program under the South Pacific Regional Environment Program. These and other initiatives reflect Australia's commitment to the Plan of Action of the Barbados Conference on the development of small island developing states.

Australia is funding an environmental technology transfer and capacity building project in Indonesia titled the BAPEDAL Pollution Control Project. This five year, $22 million project is designed to improve Indonesia's environment protection capabilities by helping to develop the capacity of Indonesia's environment protection agency. Major capacity building projects are also underway in a number of other countries including Papua New Guinea ($6.2m assisting the Department of Environment and Conservation fulfil its mandate for the sustainable management of natural resources), the Philippines ($5.5m towards the Department of the Environment and Natural Resources Human Resource Development project) and India ($12m Hyderabad Waste Management Project).

The Australian Centre for International Agricultural Research (ACIAR) provides support for bilateral collaborative projects involving research partnerships between scientists in Australia and developing country institutions. ACIAR's projects have a strong capacity building focus, giving developing country scientists opportunities to work closely with highly experienced Australian scientists who are often world leaders in their field.
Education is sustainable development's most fundamental building block. By supporting improvements in education in developing countries to reduce poverty and improve the standard of living of their people through sustainable development. Under a new education and training policy there is an increased emphasis in the areas of basic education and vocational and technical education. Targeted support for higher education and the provision of tertiary scholarships for study in Australia will also continue in recognition of the role that it plays in meeting human resource development needs in recipient countries.

AGENDA 21 CHAPTER 38: INTERNATIONAL INSTITUTIONAL ARRANGEMENTS

STATUS REPORT:

Australia supported the establishment of the UNCSD and has been a member of the commission since its inception. Australia's commitment to the principles of Agenda 21 are also reflected in the appointment of an Ambassador for the Environment.

Australia funds key international institutions involved in promoting multilateral solutions to environmental problems. Among these organisations are United Nations Environment Program (UNEP), World Health Organisation (WHO), United Nations Fund for Population Activities (UNFPA), United Nations Development Fund for Women (UNIFEM), World Meteorological Organisation (WMO), United Nations Development Program (UNDP), International Maritime Organisation (IMO), United Nations Education and Scientific Cooperation Organisation (UNESCO), Food and Agriculture Organisation (FAO), and the twenty-two international agricultural research centres, including the sixteen centres of the Consultative Group on International Agricultural Research.

Australia has consistently supported an expanded role for NGO participation throughout the UNCED process. This commitment has been reinforced by having NGO representatives on Australian delegations to all sessions of the CSD.

AGENDA 21 CHAPTER 39:INTERNATIONAL LEGAL INSTRUMENTS AND MECHANISMS

STATUS REPORT:

Since UNCED, Australia has continued to support the development of international environmental law through a range of activities. These included treaty formulation, domestic implementation of treaty obligations and improved processes to ensure greater transparency in Australian treaty-making.

Australia has played an active role in a number of multilateral agreements including the Basel Convention, negotiations to draw up an international Convention on the Safety of Radioactive Waste Management, the Montreal Protocol, the UN Framework Convention on Climate Change, and the Convention on Biological Diversity. At a regional level, Australia has participated in a number of negotiations under the SPREP Convention and the Apia Convention. Australia also played an active role in the development of the Regional Convention on Hazardous and Radioactive Wastes (Waigani Convention).

In May 1996, the Federal Government introduced a number of treaty reforms designed to take fuller account of Australia's federal structure and the importance of consultation with Australian State and Territory Governments. At an intergovernmental level, a Treaties Council has been established as an adjunct to the Council of Australian Governments. At the federal level, all treaties, with the exception of urgent and sensitive treaties, are required to be tabled in Parliament at least 15 sitting days to allow for Parliamentary scrutiny before binding treaty action is taken. In addition National Interest Analyses are required to be prepared for all treaties to which Australia is considering becoming a party.

This package of treaty reforms will enhance domestic involvement in, and ensure Parliamentary scrutiny of, treaties to which Australia intends to become a party. In this way treaty reforms are expected to have a positive impact on the operation and implementation of international environmental law in Australia.

AGENDA 21 CHAPTER 40: INFORMATION FOR DECISION-MAKING

STATUS REPORT:

Environmental information is held by a diverse range of institutions in Australia. The primary responsibility for the collection and collation of economic and social statistics in Australia rests with the Australian Bureau of Statistics (ABS). There are numerous projects being undertaken by government agencies at the Federal and State level and in research and teaching institutions, which are aimed at developing methods of integrating economic, social and environmental information with a view to better understanding of sustainable development implications of human activity. These include state of environment reporting, the development of indicators of sustainable development, methods for resource valuation and systems of environmental and natural resources accounting. Projects relevant to resource accounting include a forests inventory and a national pollutant inventory being developed by Environment Australia, and accounts for water, energy, fisheries, forests, minerals being developed by the ABS.

The Environmental Resources Information Network (ERIN), located Environment Australia is providing environmental information for policy development and decision-makers. ERIN databases store a vast array of information about the environment, ranging from endangered species to drought and water pollution. Information is drawn from many sources including maps, species distributions, documents and satellite imagery. Through the Internet the community can access this information and the analytical tools to interpret it. It is found on Internet at http://www.erin.gov.au.

The National Resource Information Centre (NRIC)develops advanced computing systems designed to service policy and community needs for information on sustainable development. NRIC integrates information from diverse disciplines using data modelling, decision support systems, visualisation and animation to analyse and then communicate the complexities of natural and socio-economic systems. Its information resources consist of more than 50 national and 100 regional spatially maintained datasets. Its resources include FINDAR, software for interrogating metadata on more than 6500 databases that it maintains as a directory linked to all other major international directories. NRIC also provides training in information technologies and applications for sustainable development to domestic and international agencies via its Advanced Systems Institute. NRIC has an active Internet site at http://www.nric.gov.au.

NGOs and community based organisations also play a significant role in collecting and disseminating information to the community and to all spheres of government in Australia. Australian NGOs are also developing contacts with other NGO networks at the regional and international levels, especially through the use of computer based communication networks such as PACTOK, which links NGOs in the Pacific Region.